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Enhancing student development in service-learning with performance-based assessment rubrics

Paula M. Vaughn
Arizona State University

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ENHANCING STUDENT DEVELOPMENT IN SERVICE-LEARNING
WITH PERFORMANCE-BASED ASSESSMENT RUBRICS

by

Paula M. Vaughn

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

ARIZONA STATE UNIVERSITY

May 2002

NSLC
c/o ETR Associates
4 Carbonero Way
Scotts Valley, CA 95066

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by

Paula M. Vaughn

has been approved

March 2002

APPROVED:

Gary R. Hanson . Chair
Paul A. Allen
James L. McKiles
Supervisory Committee

ACCEPTED:

[Signature]
Division Director

[Signature]
Dean, Graduate College

ABSTRACT

This study examined issues regarding the educational development of students in service-learning programs using sets of performance-based assessment rubrics and other assessment techniques. In particular, this study employed the Service-Learning Assessment Toolkit (SLAT), a compilation of instruments, measures, and guidelines developed by the researcher. The SLAT captured students' educational development through a variety of data sources and measured development across six target constructs: career exploration, civic participation, and academic, ethical, personal and social growth.

The researcher used a naturalistic inquiry and data was collected and analyzed based on a two-group scenario, instructor and student. The research data identified whether the students who used the SLAT had a significant level of developmental growth in a service-learning target construct compared to students who did not use the SLAT.

The study concluded that all students who participated had examples of positive educational outcomes in at least three of the six educational targets. There was no evidence that one type of target dominated the learning process. Each assessment tool contains some features to enhance student development across the six educational targets. Although this study did not reveal firm causal relationships between the SLAT performance-based assessment rubrics and service-learning student development, it did capture some effective strategies for assessing service-learning educational outcomes.

The researcher hopes that this study will continue to help instructors measure service-learning outcomes through an effective set of tools that is specifically relevant to service-learning programs. The outcomes of this study have real-life implications that empower students to analyze, evaluate and synthesize practical problem-solving situations.

This dissertation is dedicated to my husband, Richard P. Vaughn,
my daughter Gillian, my family, and all Service-Learning Educators.

ACKNOWLEDGMENTS

This study grows from countless provocative and helpful conversations with dozens of friends and colleagues, whose names should by all rights appear here, space restrictions notwithstanding. I ask forgiveness for acknowledging all who offered assistance, insights, and corrective suggestions via this too-brief paragraph.

Nonetheless, several individuals whose help made this study possible: the Delta Doctorate faculty members at Arizona State University, the instructor and students at Mesa Community College who took part in the study, especially Ms. Jonelle Moore; my fellow Delta Doctorate cohort members, especially Patty Vogel, who was there for my never-ending questions and encouragement; my boss, Anne Eller-Albert, for her feedback and support, who believed and gave me the chance to shine and by providing a job in service-learning, without her this study would not have been fulfilled.

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I also want to thank my parents, Donna and Earl, who have supported and encouraged me through my schooling both emotionally and spiritually; my siblings, Patti, Dewey, Kathy and Arthur, who put up with my endless whining; my in-laws, nieces and nephew, for their patience and understanding and who spent many hours watching Gillian. I thank you and promise to become the same reliable resource in your hour of need.

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CHAPTER 1

INTRODUCTION TO THE STUDY

Nothing liberates our greatness like the desire to help, the desire to serve.

Marianne Williamson (1996)

Introduction

The roots of contemporary service-learning can be traced to several traditions within American education that emphasizes the importance of direct personal experience as a tool of learning. John Dewey and other progressive theorists envisioned experiential education both as a means of linking individuals more closely to their communities and as indispensable preparation for democratic citizenship (Dewey, 1966).

In his history of higher education, Frederick Rudolph reminds us: “From the beginning, the American college was cloaked with a public purpose, with a responsibility to the past and present and the future” (Rudolph, 1962, p.61). Since the founding of Harvard College in 1636, the goals of American higher education have included the preparation of citizens for active involvement in community life (Smith, 1994).

Subsequent developments have extended this insight in a number of directions, as evidenced by the growing prevalence of programs, life-experience credits and other forms of learning that take place in non-classroom settings (Kendall, 1990). Experiential education has also provided intellectual support for a wide variety of voluntary youth service programs, including those sponsored by religious groups and a host of government agencies.

Background

In the last three decades, educators have increasingly linked university and high school courses to service-learning allowing students to relate their academic pursuits to work in the community. A 1999 federal report suggested more schools are implementing service activities and revealed that one-third of the nation's schools are providing service-learning programs and almost two-thirds are coordinating community service activities for their students. Almost all universities are interested in using their resources to develop effective citizenship among their students, to address complex requirements in their communities, and to establish creative partnerships between the university and community. Teaching and learning in higher education have many times become too confined to the walls of the classroom, and have not expanded into the community to build campus-community partnerships (Shields & Seville, 1999). "Service, combined with learning, adds value to each and transforms both" (Honnet & Poulsen, 1989, p.38). Learning improves the quality of service today and more importantly helps sustain it throughout a citizen's life by developing attitudes toward community and a commitment to making a difference (Giles & Eyler, 1994).

While some educators and policy makers see the rise of service programs as a positive step toward more fully engaging students in useful and exiting learning experiences, others remain unconvinced that students should be spending time performing community service. Service proponents claim that linking community service with the academic curriculum provides students with an important personal and practical education that is usually not available within the traditional classroom

curriculum (Boyer, 1990; Kendall & Associates, 1990; Mainzer, Baltzley, & Heslin, 1990; Wood, 1990). Some educators are convinced of the power of service-learning but are aware that many outside the community of true believers, have considerable doubt as to the value of service-learning as an approach to academic learning (Eyler, 1999). Zlotkowski explained that service-learning has not been embraced by academic departments as a legitimate instructional method (Zlotkowski, 1996). Skeptics ask whether service-learning, although popular with students, has an impact on what students learn. Harkavy and Romer (1999) discussed that despite the good intentions of service-learning goals; the activities typically involve approaches that may not be sufficient for the task of improving communities or societies. "Service-learning, rather than focusing on solving core community problems, has largely been involved in improving the civic consciousness and moral character of college students" (p.23). Other proponents suggest that engaging students in community service can help improve students' self-esteem, motivation towards school, citizenship, as well as their leadership, communication and social skills (Berman, 1990; Fowler, 1990). Although a great deal of data exists which indicates that service programs generally have positive outcomes for students, few findings from methodologically sound research studies are available. Most of the documented findings from existing research have been based on studies that were quite limited in scope and consequently are not readily generalized beyond the specific programs that were studied.

The dramatic increase in service-learning programs has created a demand for information to help justify and sustain these programs. A fair amount of evaluation of

service-learning has already been studied. For example, Jacoby (1998), stated that “the existing research on service-learning, although much of it focuses on students at the elementary and secondary levels, has been encouraging” (p.34). Service-learning has been correlated with an increase in grade-point average, learning satisfaction, moral development, self-esteem, and an increase in student learning of course specific content. Many researchers believe that enough evaluation of service-learning has been carried out but if one would look carefully at the research data, much of the data is soft (Lisman, 1998).

Most of the constructs that form the basis of higher education service programs—enhancing critical thinking, building career awareness, developing civic responsibility, providing opportunities for social development, promoting good values and ethics, increasing motivation for learning, for example – are difficult to measure (Gray, 1996). In most of the higher education studies found, many researchers only looked at a handful of constructs. Eyler and Giles (1999) researched service-learning impressions on student skills, attitudes, values and understanding. They observed attitudes toward tolerance, personal efficacy, leadership skills, communication skills, and career skills. Furco measured the service-learning effectiveness of certain educational areas among K-12 service programs (Furco, 1997). Although Furco's study was consistent to many higher education studies, he looked at three different types of community service programs as defined by the K-12 schools.

Another reason for scant research is that it is difficult to find instruments that can definitively measure the full range of service-learning outcomes. In many cases, service

researchers have had to develop their own set of instruments and assessments as a means to adequately capture the wide range of program outcomes (Shumer, 1994). Finally, since service programs are inherently idiosyncratic—each program is defined by the interrelationship among its particular participants, community and service activities—it is inappropriate to generalize study findings from one program to another program. While a few studies have explored the educational outcomes of service attitudes, these studies have been limited in scope and have not produced definitive findings. Simple self-reported survey questions and focus groups determined most of the findings.

Statement of the Problem

It is clear, after reviewing extensive research in the area of service-learning assessment, it is warranted that the field of service-learning needs more assessment tools to measure the impact of service-learning on students. While there are some instruments available, they are mostly in form of surveys and they do not get at the kind of outcomes that service-learning practitioners are now discussing and working with. This study is going to address this problem by trying to develop such a set of instruments or a set of rubrics, which may be applied as instruments. The field of service-learning needs better instruments to assess learning outcomes. The literature review indicates that, while there are some tools, most are not well developed. Practitioners are calling for new tools, including the people to whom they are accountable. The community is calling for new tools because as they are being called in as partners, researchers need to be more clear about the nature of the partnership. Students and faculty would also benefit from better instruments because faculty would be better instructors and teach more effectively. This

study is designed to field test and sharpen a new set of measures for service-learning outcomes and to produce evaluation and documentation tools.

Most service-learning programs use self-reporting surveys and objective tests to determine movement in certain educational outcomes. This has caused serious skepticism among researchers. Many see pre and post self-reported surveys as simple evaluations used for program accountability. They also consider surveys unreliable and question their validity. Furthermore, self-reporting surveys are not giving the profession the feedback that is really needed. According to Wiggins (1993) feedback is information that provides the performer with direct, usable insights into current performance. Many instructors still believe that a grade and a short series of comments constitute feedback.

In order to assess a student's understanding of service-learning and give the student feedback about his/her performance, an instructor must develop an assessment tool that becomes an integral part of the curriculum. The tool should be used continuously and simultaneously with any activity. Because most students do not understand what is expected from them, a performance-based rubric is warranted which will provide useful feedback for both the student and teacher. The rubric will consist of the following target constructs, which will also contain some definitions developed by Andrew Furco in his 1997 dissertation (Furco, 1997) and the researcher.

Academic Growth – the rubric will measure changes in student's high order thinking and self-knowledge of own learning expectations. Motivation toward a future of lifelong learning.

Furco's definition: changes in students' attitudes and motivation toward school and learning, understanding of relevance of academic content and overall school performance (Furco 1997)

Career Exploration - the rubric will measure changes in student's learning and personal development of career opportunities. Makes decisions that are discipline related and concentrates energies on deepening their understandings. Fully integrates service into career choices.

Furco's definition: changes in student's formulation of career plans and emphasis on developing a career that is personally rewarding and/or beneficial to others (Furco, 1997)

Ethical Growth - the rubric will measure changes in students' exploration of surrounding communities and becomes advocates of ethical behavior and justice. Gains new insight about others' moral challenges, injustices and misconceptions.

Furco's definition: changes in attitudes toward standing up for what is right, willingness to participate on behalf of justice, and their ability to better distinguish between right and wrong, and good and bad. (Furco, 1997)

Social Growth - the rubric will measure changes in students' perceptions toward social justice, racism, classism, and economic status. Ability to sense a shared purpose of social impact with racially and culturally diverse populations.

Furco's definition: changes in students' ability to work with others and attitudes toward those who are culturally and racially different. (Furco, 1997)

Personal Growth - the rubric will measure changes in students' choices that demonstrates the integration of information they gain about themselves through self-discovery. Identify connections with other students who share same personal values, sense of satisfaction and accomplishment.

Furco's definition: changes in students' self-esteem, sense of self-empowerment, and overall leadership skills. (Furco, 1997)

Civic Participation - the rubric will measure changes in students' commitment to become involved in activities outside their normal community.

Furco's definition: changes in students' awareness of societal issues and willingness to take on active roles in the community. (Furco, 1997)

Purpose of the Study

College students and the communities they serve stand to reap substantial benefits from engaging in service-learning. Frequently cited benefits to student participants in service-learning are developing the habit of critical reflection; deepening their comprehension of course content; integrating theory with practice and strengthening their sense of social responsibility (Jacoby 1996).

The purpose of this study is to explore various evaluation techniques used to assess benefits of service-learning programs for college students. Specifically, the study is designed to answer the following questions:

Research Questions

The study addressed the following questions:

1. How do performance-based evaluation techniques influence service-learning development and growth?
2. How can each of the following evaluation tools be effectively used or adapted to assess benefits of service-learning:
 - a. Instructor Rubric
 - b. Student-Friendly Rubric
 - c. Scoring Rubric
 - d. Service-Learning Improvement Plan
3. What evaluation scheme provides the most compelling profile of student achievement as a result of service-learning programs?

These three questions will guide the research design and data analysis.

For the most part, causal comparison links between service activities and students' educational outcomes remain weak (Shumer, 1994). By designing, implementing and evaluating the results from these three questions, the research will provide a monitoring effect on the learning in the classroom and community. In using a performance-based rubric, the researcher hopes to define clear learning outcomes which will help guide decision-making in service-learning programs. The researcher also intends to provide a more elaborate service-learning assessment tool to measure the educational development of service students.

Definitions

Service-Learning

A lot of energy has been devoted to defining service-learning. In 1990, Kendall wrote that there were 147 definitions in the literature, and there has been no slack of interest since. One author noted that "many definitions and approaches have been used within the general framework of linking service with learning" (Sigmon, 1994, p.9). For example, some schools only require 20 hours of community service in order to graduate and promotes this as service-learning. At the other extreme, there are well-integrated programs within college and universities where students spend a year or two in a connected series of courses linked to service projects in the community.

For the purposes of this research, service-learning is defined as: a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development. Reflection and feedback are key components of service-learning.

Service-Learning Program

For the purposes of this research, service-learning program is defined as: a program that emphasizes the performance of tasks which meets human and community needs with purposeful learning goals and with conscious reflection and critical analysis. Service-learning will also have to be integrated into course content and seen as a way for students to apply course content to address real world issues in the community.

Assessment

For the purposes of this research, assessment is defined as: a system that is deliberately designed to teach by revealing to students authentic tasks; the system should provide rich and useful reciprocal feedback.

Rubric

For the purposes of this research, rubric is defined as: a printed set of guidelines that distinguishes performances or products of different quality. It has descriptors that define what to look for at each level of quality and indicators providing specific examples of things to look for in work.

High-Order Thinking

For the purposes of this research, high order thinking is defined as: an interactive self-aware process that results in meaningful, long-lasting changes in knowledge, understanding skills, behaviors, attitudes, beliefs, opinions, and/or values.

Standards

For the purposes of this research, standards are defined as: an established level of achievement, quality of performance, or degree of proficiency expected of students.

Portfolio

For the purposes of this research, portfolio is defined as: an integrated collection of students' work showing effort, progress, or achievement in one or more areas.

Reflection Journal

For the purposes of this research, reflection journal is defined as: a personal collection of key ideas, questions, and reflections generated from readings, participation and activities in the service-learning program.

Reflection

For the purposes of this research, reflection is defined as: a highly detailed collection of thoughtful personal connections or insights into service-learning experiences or performances.

Performance-Based Education

For the purposes of this research, performance-based is defined as: the encompassing of new trends to assess active learning using projects, journals, portfolios, exhibitions based on high expectations and standards.

Lifelong Learning

For the purposes of this research, lifelong learning is defined as: a person with the curiosity and passion to continue acquiring the knowledge and skills desired beyond classroom walls.

Feedback

For the purposes of this research, feedback is defined as: information that is transferred between two parties for the purposes of improvement and provides the performer with direct usable insights into current performance.

Indicator

For the purposes of this research, indicator is defined as: a more specific description of a learning outcome in terms of observable and assessable behaviors.

Learning Outcome

For the purposes of this research, learning outcome is defined as: a goal statement specifying a desired knowledge, skills/processes, and attitudes to be developed as a result of educational experiences.

Self-Reported Survey

For the purposes of this research, self-reported survey is defined as: a type of assessment in which a student self reports his/her feelings, attitudes, and knowledge about certain products or processes.

Self-Knowledge

For the purposes of this research, self-knowledge is defined as: the wisdom to know one's awareness of biases in one's understanding brought by favored styles of inquiry, habits of thinking, and unexamined belief.

Assumptions and Limitations

In any study there is always the possibility that the relationship shown from the case studies can be explained by something else. The researcher has tried to minimize threats to internal validity by reducing the mortality rate, instrument decay, location, data collector bias, maturation, and attitude of subjects. The researcher hopes to reduce the mortality rate of students participating in the study by interviewing students within the first two weeks of the semester. By doing this, the researcher knows the chances of students dropping the courses are low.

In regards to instrument decay, the researcher will try not to make any changes to the rubric or assessment tools throughout the semester. The researcher knows that if the

instruments are changed, it can create problems. As for location, the researcher plans to utilize the assessment tools in a public college classroom in a non-threatening environment. In the area of data collector bias, the researcher understands that students being offered credit and graded by the researcher may influence participants grading options or willingness to answer the questions. The participants may also be intimidated when they are interviewed. Over the course of the semester, many participants may change or mature; be influenced by their other courses, which could be a problem with maturation. Lastly, the attitudes of the participants could change. Participants are not being paid and are free to withdrawal from the study at any time. The researcher has ideally tried to get participants who may have had some exposure to service-learning and participants who do not have any pre-conceived notions about service-learning. Another factor that might influence the attitude of the participant is the relationship with their teacher and any outside influences not associated with the program. All of these could affect the way the participant finishes the required evidence.

In addition to threats of validity, the researcher has many assumptions. One in particular is that participants are registering for the service-learning because they want to make a difference in their communities and not because they heard it is an easy "A". The researcher also is assuming that students will understand the rubric definitions and are sincere in their responses. The researcher hopes to elicit truthful answers not what the participants think the researcher wants to hear. Furthermore, the researcher has reservations about the generalizability of the study because of the different types of service-learning programs.

Significance of the Study

The primary purpose of this research is to study previously un-addressed issues regarding the educational development assessment of service-learning programs. This study will go beyond the limited scope of previous studies by researching learning outcomes in a more methodologically comprehensive way. By using multiple qualitative assessment tools, this study will compare each assessment tool for the best overall educational learning outcome.

This study will measure students' development across six educational targets, which were described earlier: Academic Growth, Career Exploration, Civic Participation, Ethical Growth, Personal Growth and Social Growth.

Overview of the Study

The background literature, that discusses the research on various assessment techniques, is found in Chapter 2. The procedures for designing, collecting, and analyzing the data are detailed in Chapter 3. The results of the study presented in case form are in Chapter 4, and Chapter 5 provides a discussion of the findings, implications of the research, recommendations for further research and concluding remarks.

CHAPTER 2

LITERATURE REVIEW

It is not enough that certain materials and methods have proved effective with other individuals at other times. There must be a reason for thinking that they will function in generating an experience that has educative quality with particular individuals at a particular time.

John Dewey (1938)

Brief History of Service-Learning

In the last decade, service-learning has assumed a position of prominence in many educational institutions. Originally understood as a student-initiated, extracurricular activity, service is being integrated into the curriculum and the institutional fabric of a growing number of colleges and universities. Educators and policymakers have shown increased enthusiasm about service-learning, and the numbers of service-learning programs have grown accordingly (Rhoads, 1998).

Community service on campus is certainly nothing new. In fact, most historians would agree that American colleges and universities were first founded in the seventeenth and eighteenth centuries around the idea of service—understood at that time as service to church and to the civic community. At the end of the nineteenth century, some research universities still promoted the connection between campus and community through service.

This tradition of community service on college and university campuses has been on the upswing. According to Newman (1985), the most critical demand to campuses is to restore higher education to its original purpose of preparing graduates for a life of

involved and committed citizenship. Stakeholders increasingly demand graduates able to think critically and responsibly. Higher education needs to produce graduates who have a profound understanding of what it means to be a citizen; graduates capable of an interest larger than self-interest; graduates capable of helping this country to be not simply a strong competitor but a responsible and effective leader in a complicated world.

Most researchers would say that service-learning stems partly from the connection between the current views of the way people learn best and the changes needed to make education more effective. The clearest and easiest way to understand the nature of service-learning is to highlight the central claim of the field: “Service, combined with learning, adds value to each and transforms both” (Honnet & Poulsen, 1989, p.38). Eyler and Giles (1999) wrote in their book *Where's the learning in service-learning?*, that this quote captured the essence of service-learning quite well. It succinctly states the widely held practitioner belief about the unique role of service-learning programs: to combine classroom learning with service work in the community. Learning improves the quality of service today and more importantly helps sustain it throughout a citizen's life. Service transforms learning, changing inert knowledge to the application of knowledge and competencies in a community context.

This wisdom about effective learning is consistent with a long tradition of experiential learning theory from Dewey to modern cognitive scientists (Eyler & Giles, 1999). Furco (1996) stated that Dewey and other progressivists suggested that formal education had evolved overtime to become the traditional model of passing along a pre-determined knowledge base, whatever the discipline, on to a new generation of students.

The methodology of this transmission is familiar to all of us: lectures, chalk and blackboards, reading and written examinations. The professor is the source of information, and the student absorbs what he/she can. Inspired by Dewey, new generations of educators have initiated a variety of different learning paradigms. Some extreme interpretations call for the total abandonment of traditional education, with totally free experience becoming the vehicle of learning.

In his response to these interpretations and with a reiteration of his own educational philosophy, Dewey (1938) in *Experience and Education*, shows how education is not an either-or-proposition. One does not need to choose between the two extremes, and in fact should not. The knowledge base is indeed important. But certainly experience in interpreting that knowledge, testing it in current situations, and analyzing its meaning is crucial for true learning to take place. Indeed, a student's natural interest in a subject can only be sparked by an involvement in the subject and therefore immediate interaction with new knowledge in meaningful ways is needed for successful learning. It is the task of the educator to provide experiences for his/her students that will be a "moving force" for real learning and understanding to take place.

Dewey (1938) also stated that learning occurs through a cycle of actions and reflections, not simply through the ability to recount what has been learned through reading and lecture. He stated that memorization of material for reproduction on tests is static and unlikely to be of much use in the long term. Knowing and doing cannot be severed. Dewey argued that learning is a wholehearted affair, linking emotions and intellect. An educative experience is one that fosters student development by capturing

student interest, through passion, because it is intrinsically worthwhile and deals with problems that awaken student curiosity. It inspires a need to know that extends over a considerable period of time (Giles & Eyler, 1994). Experience enhances understanding and leads to more effective action. Both learning and service gain value and are transformed when combined in the specific types of activities called service-learning.

Kendall (1990) stated that different service-learning programs emphasize different types of learning goals: intellectual, civic, ethical, moral, cross-cultural, career or personal. Service-learning programs are also structured to promote learning about the larger social issues behind the needs to which their service is responding. This learning includes a deeper understanding of the historical, sociological, cultural, economic and political contexts of the needs or issues being addressed. Service-learning emphasizes the accomplishment of tasks to meet human and community needs in combination with “intentional learning goals with conscious reflection and critical analysis” (p.14).

Hundreds of college and university presidents, major higher education associations, and some highly influential scholars actively support the development and growth of service-learning within the higher education sector. At the same time, others within higher education—especially faculty—are skeptical of the benefits of service-learning, particularly when service is integrated into for-credit academic courses (called course-based service-learning). Critics contend that service waters down the curriculum, further weakening the quality of higher education, and that the time students spend volunteering in community agencies as part of a course might be better spent in the library or laboratory.

Moreover, skeptics still question whether it is realistic to expect a relatively modest intervention to have such profound effect. The implementation of service-learning also presents many problems, ranging from the demands such programs place on faculty members to the quality of learning activities. Relatively few faculty participate, and until they do, service-learning will remain a marginal educational activity within higher education.

Given the challenges presented by service-learning, why would faculty and administrators incorporate service-learning into their courses? First, there is the joy that academic service-learning provides. Many faculty still want to have their teaching and learning make a difference—and service-learning makes that connection for the student. Second, because service-learning crosses so many boundaries, it offers new opportunities to think more consciously and more creatively about relationships, including those of faculty and student, disciplinary and multidisciplinary knowledge, campus and community. Third, because service-learning is an evolving field, those who enter it have the opportunity to contribute to its development. Fourth, because service-learning calls for a link between activities in the classroom and activities in a community, it offers a vehicle to faculty, students and community partners for thinking and responding in new, collaborative ways to the critical issues that confront our local and global societies.

Service-Learning as a Pedagogy

Kolb's concept of the experiential learning cycle is useful in explaining the role of service-learning as pedagogy (Kolb, 1984). His model outlines the learning experiences as a constantly revisited four-step cycle: concrete experience, reflection on the

experience, synthesis and abstract conceptualization and active experimentation, which is testing the concepts in new situations. Even though anyone may enter the cycle at any point, a person usually engaged in service-learning often begins with the concrete service experience and then embarks on a period of reflection on that experience, analyzing what actually occurred and what implications arise from those observations. Next, reflection stimulates the learner to integrate observations and implications with existing knowledge and to formulate concepts and questions to deepen the learner's understanding of the world and the root causes of the need for service. Finally, the learner tests these concepts in different situations. Thus experimentation led the learner to begin the cycle over and over again (Kolb, 1984).

Recent cognitive scientists have come to a series of conclusions about student's learning that are remarkably similar to those long endorsed by scholars and practitioners in the experiential learning tradition. Their focus has what Whitehead (1929) first characterized as the inert knowledge problem: the tendency of students to acquire stores of knowledge that are quite useless to them when they are in new situations. They also found that students rarely transferred knowledge and principles learned in classroom instruction to new problems; even students who had been presented with information about solving a problem directly to a new problem often failed to apply it (Bransford, 1993). Subsequent repeated attempts to solve similar problems and support and encouragement to apply what was learned seemed to lead to application. Both scientists and educators recognize the barriers presented to developing "knowledge in use" (Schon, 1995, p.102) by the nature of much classroom instruction and stress the importance of

learning in complex contexts and the “active construction of knowledge” (Bransford & Vye, 1989, p.78).

Resnick (1987) contrasted the nature of learning in school and in the community where this learning will be applied, noting that unlike typical classroom learning, real-world learning tends to be more cooperative or communal than individualistic, involves using tools rather than pure thought, is accomplished by addressing genuine problems in complex settings rather than problems in isolation, and involves specific contextualized rather than abstract or generalized knowledge. Learning that more closely approximates the situation in which students will use their knowledge and continue to learn is less likely to be useless or inert.

Importance of Reflection in Service-Learning

Traditionally, service-learning is differentiated from volunteerism by its attention to reflection. Honnet and Poulsen (1989) stress the importance of reflection as the vital link between service and learning. They describe it an activity that enables community service and academic and civic learning to serve one another so that “service, combined with learning, adds value to each and transforms both” (p.38).

The definition of service-learning also highlights the importance of reflection. Bringle and Hatcher (1997) state that reflection is the “intentional consideration of an experience in light of particular learning objectives” (p.68). Reflection is an essential ingredient in the pedagogy of academic service-learning. The presumption is that community service does not necessarily, in and of itself, produce learning. Reflection activities provide the bridge between the community service activities and the

educational content of the course. Reflection activities direct the students' attention to new interpretations of events and provide a means through which the community service can be studied and interpreted, much as a text is read and studied for deeper understanding.

The extensive work of John Dewey offers a philosophical foundation for the role that reflection assumes in the learning process as a bridge between experience and theory. Indeed, personal experiences, such as those gained through community service, allow theory to take on meaning when reflection supports analysis and critical examination of the experience. Dewey (1916/1966) contends that experience is as important as theory.

An ounce of experience is better than a ton of theory simply because it is only experience that any theory has vital and verifiable significance. An experience, a very humble experience, is capable of generating and carrying any amount of theory (or intellectual content), but a theory apart from an experience cannot be definitely grasped even as theory. It tends to become a mere verbal formula, a set of catchwords used to render thinking. (p. 42)

Too often, the presentation of a theory by an instructor or in a textbook is viewed by students as an empty venture. It is through active learning and the interplay between abstract, remote content and personal experiences that student learning is deepened and strengthened.

According to Dewey (1933), reflection is an "active, persistent, and careful consideration of any belief or supported form of knowledge in light of the grounds that support it" (p.45). Reflection consists of "turning a subject over in the mind and giving it

serious and consecutive considerations” (p. 46). Dewey acknowledges that experience by itself does not necessarily result in learning; experiences can be either “miseducative” or “educative.” Experience becomes educative when critical reflection creates new meaning and leads to the ability to take informed actions. Dewey notes that communication, particularly face-to-face discourse, is a key to creating educative experiences.

Communication with others leads not only to educational growth but also to social and moral development.

Gouinlock (1994) is clear in identifying the moral dimensions of Dewey’s educational philosophy. He notes, the values, aims, and expected response of others play a critical role in stimulating revised interest in each participant. Accordingly, in a community where full and open communication exists, reflection is an essential condition for the growth of new values and forms of behavior (Giles & Eyler, 1994).

Dewey specifies four conditions that maximize the potential for inquiry-based learning to be educative: (a) it must generate interest in the learner; (b) it must be intrinsically worthwhile to the learner; (c) it must present problems that awaken new curiosity and create a demand for information; and (d) it must cover a considerable time span and foster development over time.

Following Dewey, David Kolb’s experiential learning theory provides a conceptual framework for service-learning educators. There are four aspects of Kolb’s experiential learning cycle: (a) concrete experience, (b) reflective observation, (c) abstract conceptualization, and (d) active experimentation (Kolb, 1984). Kolb (1981) notes that learning can begin at any point on the cycle, and the preferred point of entry for

learners is an indication of their learning style preference. Reflection is essential to this learning process, for it can link the concrete to the abstract.

Surprisingly, in spite of its importance in experiential learning theory, reflection remains an underdeveloped aspect of service-learning. Giles and Eyler (1994), articulate the need to develop “a clearly defined and commonly shared body of knowledge in order to develop and refine a solid research agenda for service-learning” (p.328). Others agree and feel that there needs to be guidance in designing structured learning activities that promote intentional consideration.

Eyler, Giles, and Schmiede (1996) found that reflection is most effective in service-learning courses when it conforms with the “4 Cs:” (a) continuous, reflection activities are undertaken throughout the service-learning course, rather than intermittently or irregularly; (b) connected, reflection efforts are structured and directly related to the learning objectives; (c) challenging, reflection efforts set high expectations, demand high quality student effort, and facilitate instructor feedback that stimulates further student learning; and (d) contextualized, reflection activities are appropriate to the particular course, and commensurate with complementary to the level and type of course learning activities.

Bringle and Hatcher (1995), believe that effective reflection activities (a) link experience to learning objectives, (b) are guided, (c) occur regularly, (d) allow feedback and assessment, and (e) include the clarification of values. The process of meaningful reflection takes time. Regular, varied, analytical activities can lead a student through different stages of reflection, enriching the learning from the service experience. They

state that when reflection activities with these qualities are integrated into service-learning courses, students will be better able to connect the service to coursework, and their learning will be enriched. Furthermore, because students who do this type of reflection will find their experiences more rewarding, they will be more likely to enroll in other service-learning classes and become involved in additional voluntary service activities that can lead to lifelong learning.

Types of Reflection for Service-Learning

There are many examples of reflection activities that can be used in service-learning classes. Writing is a special form of reflection through which new meaning can be created, new understanding of problems can become circumscribed, and new ways of organizing experiences can be developed. Analysis through writing helps to make challenging experiences less overwhelming, fosters problem-solving, and facilitates the exploration of the relationships between past learning, current experiences, and future action.

Student journals are common reflection activities in service-learning courses because they are easy to assign and they provide a way for students to express their thoughts and feelings about the service experience throughout the semester. It is important that students know, at the beginning of the course, what is expected in a journal and how it is going to be used. Some journals, intended as personal documents, are never submitted for a grade. Journals may also be reviewed periodically by the instructor and can be shared with other students or with community agency personnel. If journals are to

be evaluated for a grade, then this policy should be made clear at the beginning of the semester and the criteria for grading the journal should be specified to the students.

A sample of conventional reflection activities includes structured journals, discussion groups, integrative papers and oral presentations. Creative reflection activities include experiential research paper, class presentations, electronic reflection, pre/post videos, pre/post essays, dialogue journals, simulations, artistic reflection (song or dance), policy action and reflective interviews. Each of these activities must have carefully designed guidelines.

For service-learning to educate students toward a more active role in community, careful attention must be given to reflection. Reflection activities must allow students to discover the value of dialogue, embrace the importance of diverse learning processes and develop the ability to make meaning of personal experience.

Description of Service-Learning Outcomes

Throughout the service-learning research, there are several learning outcomes described by researchers as indicators of growth. Many of these outcomes are similar and tend to “cross-over” into each other. This researcher is only going to discuss the six areas defined in Chapter One: Academic Growth, Career Exploration, Civic Participation, Ethical Growth, Personal Growth and Social Growth.

Academic Growth

Cognitive development.

The cognitive outcomes assessed in studies of service-learning have included grades, subject-matter achievement, and high-order thinking skills such as analysis and

problem solving. Three studies have examined the effects of service involvement on grades. A study by Melchior and Orr (1995) found no significant impact by service-learning on GPA. However, Shumer (1994) found that students in a Community-Based Learning Program had significantly higher grades after a year in the program. Features service-learning tasks seem to appeal to a broader range of motives than conventional school tasks, thus increasing students' motivation for school and academic engagement or growth. Motivation to learn may also be enhanced through service projects.

Beyond just GPA achievement, pertinent service enhances students' specific content knowledge. For example, Hamilton and Zeldin (1987) found that the students who completed service-learning internships in local government offices scored higher in their knowledge of local government than their peers in traditional classes. In a project on hunger, students who visited a food bank emerged "better informed" about the problem of hunger than students who did not (Dewsbury-White, 1993).

One frequent argument for including service in the curriculum is that activities in which students analyze community problems, design a plan, and implement solutions, can stimulate the development of higher-order thinking skills, such as analysis, evaluation, and problem-solving. Three studies have examined the effects of service projects on high-order thinking. Conrad (1980) and Conrad and Hedin (1982) found that students in experiential learning programs significantly outperformed comparison students in the empathy and complexity of their responses to interpersonal problems. Using Bloom's taxonomy, Schollenberger (1985) assessed the frequency with which students reported engaging in higher-order thinking during service-learning and their

level of thinking in response to social problems. In addition, she examined the relationships between higher-level thinking, time spent in service-learning, and students' aptitude test scores. Schollenberger found that participants in service-learning reported frequent opportunities to engage in higher-level thinking during service-learning and demonstrated high levels of thinking about social problems. However, analyses also revealed no significant correlations between higher-order thinking and either time spent in service-learning or aptitude test scores.

Academic engagement.

The features of service-learning tasks also seem to appeal to a broader range of motives than conventional school tasks, thus increasing students' motivation and academic engagement. For example, in service-learning, students are involved in cooperative relations with peers, teachers and community members and may positively affect the welfare of other people, experiences that may elicit social motives (Urdan & Maehr, 1995). Service-learning projects also engage students as resources in the solution of social problems, a task characteristic that may contribute to self-perceived competence and control. Several studies have attempted to document the effects of service-learning on academic motivation. For example, Silcox (1993) assessed the impacts of an environmental project on intrinsic motivation and students' sense of power. While students showed no significant gains in intrinsic motivation, analyses of their written reflections revealed large increases in students' feelings of power. Waterman (1993) found no change in Literacy Corps participants academic motivation over the course of

their project; however, their counterparts in traditional English classes experienced a decline in academic motivation.

Career Exploration

Career decisions/benefits.

Eyler and Giles (1999) found that students who chose to participate in service-learning were significantly more likely to value a career helping others at the beginning of the semester. This participation had a significant effect in producing change over the course of a semester. Eyler and Giles believe that service-learning strengthens the service orientation of students who are already interested in careers of service. They concluded that for some students, service-learning leads to a career of service.

In a study conducted by Vogelgesang and Austin (2000), they discovered that service oriented career choices and plans to engage in community service were characteristic of students who participated in service-learning. Students that took service-learning with related coursework tended to opt for more service oriented careers than their counterparts. Furthermore, students engaged in service-learning also reported affirmatively when asked if they planned to contribute to their communities.

A study performed at Morgan State University examined students who participated in community service learning. They found that alumni who participated in service-learning were more service oriented than alumni who were non-participants. The analysis from the study indicated that participation in service-learning impacted career directions for alumni as well as fostering a value of life-long community service (Smedick 1996).

In another study, Sledge, Shelburne, and Jones (1993) discussed the findings from forty-three students who completed a 30-48 hour service-learning component connected to a course entitled “Volunteering in the Community.” They revealed that the students who registered for the class originally did so because they desired to help others and to further their career exploration. The students reported improvements in their ability to work collaboratively, learn independently and make career decisions that will benefit their communities.

McElhaney (1998), performed a study on two sets of undergraduate students participating in an “Alternative Spring Break” program. One set of students was linked to a curriculum-based course while the other set was not. The researcher found that the non-curriculum based group bonded with and befriended each other more often than the curriculum-based group. They also learned more about group dynamics but had fewer learning outcomes. The curriculum-based group experienced a greater variety of outcomes especially in the cognitive psychological domain. They increased their understanding of community issues, connected theory to practice, broadened their career and educational choices, learned problem-solving skills, and expressed a commitment to future service involvement.

Civic Participation

Civic development.

A primary objective of service-learning programs has been to facilitate the development of attitudes, values and behaviors necessary for membership in a participatory democracy. Its proponents argue that service-learning can be an effective

alternative or supplement to text-based civic education, whose limited effects are well established. Studies have focused on citizenship outcomes including attitudes and values such as social and personal responsibility, political efficacy, political trust, political interest, dogmatism, attitudes toward others, and attitudes toward cultural diversity. In addition, investigators have measured the impacts of service-learning on both the intention to become involved in the community and actual community involvement.

Studies of political efficacy, the belief that one can positively influence the political process, have yielded mixed results. Wilson (1974), Hamilton and Zeldin (1987), and Marks (1994) found that service-learning participation had positive effects on efficacy, while in studies by Marsh (1973), Rutter and Newmann (1989), and Procter (1992), students did not gain in efficacy.

Marsh (1973) examined the impacts of a service-learning social studies class on three attitudinal components of political socialization in addition to efficacy: political interest, civic tolerance and political trust. He found a significant increase in political interest for experimental students but no changes in civic tolerance or trust. Conrad (1980) and Conrad and Hedin (1982) found that participation in experiential learning was associated with increasingly positive attitudes toward community involvement.

Many service-learning practitioners believe tolerance is a central value to civic engagement. Tolerance may include two components, a willingness to objectively consider attitudes and values different from one's own, and an acceptance of individuals that are ethnically, linguistically, and economically different from oneself. Several researchers have assessed the effects of service experiences on the first component. For

example, Sager (1973) used the Rokeach Dogmatism Scale, to find mixed results. There was not a clear correlation between services and objectivity. Other researchers have assessed the effects of experiential and service-learning on the second aspect of tolerance, acceptance of others and of cultural diversity. Again the results have been mixed. While Conrad (1980) found that students involved in experiential learning programs demonstrated significantly more positive attitudes toward adults and toward the recipients of service than controls, Silcox (1993) found no gains and Melchoir and Orr (1995) found no significant gains.

In addition to assessing the impacts of service-learning on democratic attitudes and values, researchers have also examined the effects of service on students' intent to become involved in the communities, and their concurrent and subsequent community participation. Conrad (1980) found that students in experiential learning programs made greater gains than control students in their intent to become involved in their communities. Using a posttest only, Marsh (1973) found that participants in a service-learning class expressed greater willingness to take political action than comparison students. Yates (1995) identified features of the service experience that might account for the differential results of research on intent to serve. She found that students' emotional engagement in service and amount and level of reflection, as well as course grades and friends involved in service, predicted their projected levels of service.

Other studies have examined the effects of service-learning on community involvement. Marsh (1973) found that students who were participating in a service-learning course reported higher levels of political activity during the class than

comparison students. The results of the study were no doubt due to students' coursework. However, two retrospective studies indicate that school-based community service programs can impact subsequent community involvement. Beane, Turner, Jones, and Lipka (1981) and O'Connell (1983) found that individuals who had participated in service-learning programs in high school were more likely, as adults, to hold leadership positions in formal organizations and membership in non-formal organizations than comparison subjects.

Ethical Growth

Values, beliefs and moral development.

Community projects and similar service-learning experiences can make a course more meaningful and encourage value formation. For the most part, teaching ethics or value development challenges students to examine their beliefs and actions. But for many students, that challenge is merely a mental exercise and does not affect their daily lives.

Scholz (2000) found her greatest challenge was not having her class perform a service-learning project during her ethics class at Villanova University but that she was personally challenged to find some way to encourage students to make the transition from thought to action. She discovered that a well-developed moral imagination will allow students the ability to feel sympathy and empathy for those who suffer, and compassion for near and distant people. She revealed that the service component assisted the students and herself in gaining a heightened sense of self-awareness. Many of her students described the experience as "breaking out of the bubble" of their everyday campus life. She identifies Annis's theory of stimulating moral sensitivity and imagination among the

goals of teaching ethics. Students must be able to feel compassion, empathy, care, indignation over injustice, and a range of other moral sentiments in order to both think about what an ethical response would be and respond in an ethical manner (Annis, 1992).

There is sufficient evidence between researchers that service-learning has a monumental difference in moral development in their students. Gorman (1994) found that students who participated in service-learning experiences showed significantly higher rates of growth on the moral development measure than those who did not participate.

Giles and Eyler (1994) examined personal responsibility of a service-learning experience. They reported that students experienced significant increases in their values and beliefs that people can make a difference. In addition, they stated increases in moral development and the willingness to become involved in community service (particularly in leadership and politics) issues. Students developed more positive perceptions of the people they worked with and an increased commitment to continue service.

In contrast, Leary and Fenzel (1997) stated the results from a study conducted at a parochial college. They noted that students did not show greater gains in attitudes toward personal responsibility or in moral judgment. However, content analysis of the interviews revealed that students felt more compassion toward the disadvantaged, were more committed to do community work, and held a greater belief that they could make a difference.

Greene (1996) investigated the effect of service-learning on students' moral and psychological development as well as its effects on service recipients in four occupational therapy programs. The results showed that service-learning did not significantly impact

students' moral reasoning abilities nor their development of mature relationships. The study did affirm that service-learning students valued their experiences and it increased their awareness of diversity and quality of life issues for service recipients.

Personal Growth

Personal and interpersonal skills.

Another learning objective for service-learning is the development of personal and interpersonal skills. These skills include a greater self-knowledge, spiritual growth, personal efficacy, and cultivating meaningful relationships. According to Giles and Eyler (1997) service-learning had a significant impact on how students see themselves and others. They discovered that 38% of students felt they knew themselves better but the self-awareness was gradual. Students reported improvements in self-confidence, the ability to work and learn independently, insight into their personal strengths and weaknesses, and a sense of personal achievement.

Although fewer students (20%) were impacted by spiritual growth, Giles and Eyler (1994) did detect that some student discussions about "giving back" to the community had a spiritual flavor. Some students saw their service as a definite opportunity to fulfill their religious commitment.

Giles and Eyler (1994) further looked into the feelings a student has when making a difference in someone's life. Characteristics such as personal agency, self-efficacy and political efficacy are powerful predictors of active citizenship participation. They concluded that students who opt for service-learning are significantly higher personal efficacy because they decide to become involved. Their participation was highly

correlated with an increase in personal efficacy over the service-learning experience. Students have the opportunity to take leadership and see how their skills make a difference, which leads to an increase of self-confidence.

Several of their students commented that “meeting people I never would have met,” was a catalyst for growth and change. These students also developed an appreciation and tolerance for diverse cultures and subsequently reduced their use of stereotypes.

Other advocates argue that service-learning provides opportunities to fill significant social roles, develop realistic skills, and enhance the development of self. A number of indicators for personal development have been the focus of research including self-esteem, identity development, and personal adjustment. While some studies have shown effects on self-esteem (Middleton & Sussex, 1993), the majority of studies show a positive relationship (Conrad & Hedin, 1982; Krug, 1991; Waterman, 1993).

Driscoll, Holland, Gelmon, and Kerrigan (1996) discussed findings from their case study at Portland State University. They showed that service-learning affected students in their awareness and involvement in the community, personal development; academic achievement; and sensitivity to diversity issues. Many students challenged their stereotypes and became more tolerant to others outside of the normal “culture.”

Another case study by Freidus (1997) involved graduate students at a college in New York. Several themes emerged from this portfolio/reflective study including trust in self, in others, and in the process. Most students began to feel safe and were willing to take risks, thus increasing their trust in self. A second theme was synergy—as students

bonded with each other, their energy levels provided support for one another. The third theme was evident as students began to understand the development of the reflective process. Student conversations occurred in an environment of trust.

Keen and Keen (1998) surveyed Bonners Scholars Program recipients. Students reported that their service-learning positively impacted their motivation to serve others, their sense of personal efficacy and leadership effectiveness. Kendrick (1996) also examined effects of service-learning on students given extra credit for participation in service-learning of 20 hours or more. These students showed improvements in social responsibility, personal efficacy, and in their ability to apply course concepts to new situations.

Finally, Loewen (1998) investigated differences in service-learning students' reflections compared to non-participating service-learning students. Results indicated that reflection had a significant effect upon students' levels of empathy and sense of empowerment. In addition, the analysis found that women had a significantly higher level of empathy than men in a direct service-learning setting.

Social Growth

Sense of social responsibility.

For many instructors, social responsibility represents the most important aspect of service-learning. In their courses they try to explore firsthand topics such as: social inequality, gender, ethnicity/cultural issues, social movement, political sociology and social change. Ender, Martin, Cotter, Kowalewski, and Defiore (1996), commented that service-learning furthers higher education aims by helping students develop an

appreciation for social and cultural diversity, an understanding of the sociological imagination, and an ethic of responsibility for improving the communities and society in which they live.

Sledge et al. (1993) surveyed students in the Delta region that were required to attend weekly seminars on various topics about the socio-economic conditions of the local community. The authors discovered a significant increase in students' concern about their community. They also were more aware of the inequity of resources to many dialects of the Delta region. After completing their hours, many students demonstrated leadership skills by designing newsletters with alternative resources for these communities.

Batchelder and Root (1994) examined the influence of service-learning on moral cognition. The author examined the decision-making process in response to societal needs, the level of reasoning used, and the development of occupational identity. The study found significant gains for service-learning students on complex cognitive variables, including a greater resolve to act in the face of acknowledged uncertainty and a greater awareness of the multiple dimensions and variability used in dealing with social problems. Students also increased their social decision-making and reasoning.

Other researchers such as Johnson and Bozeman (1998) studied the use of a developmental approach to student acquisition of social responsibility via service-learning. They used a new survey form of measurement "Scale of Social Responsibility Development (SSRD) developed and derived from the developmental phases of Delve and associates. They concluded that students showed a noteworthy increase in the

“Realization and Activation” scales, which contributed to social responsibility—at least on a short-term basis.

Lastly, Mabry (1998) assessed how student civic attitudes and personal social values were impacted by their service learning experience. Students’ personal social responsibility and civic attitudes varied significantly by socio-demographic characteristics. Women and Caucasian students scored significantly higher. Men non-whites, and those with the least service experience showed significant positive changes in their civic attitudes.

Classroom Assessment - What Do We Know About the Topic?

Assessment as Learning

Traditionally, when most educators finish with a lesson or chapter they give their students an essay or multiple-choice test. Most students miss the connection between what happens in class and what happens on test day, reducing the motivation both to learn in class and to study for tests. In addition, students do not receive feedback on the adequacy of their answers until long after the actual performance. One key feature of assessment, therefore, is that it can serve both as a classroom activity and a test.

Conventional approaches to assessment derive from behavioral learning theory (Sulzer-Azaroff et al., 1988). This theory holds that the focus of instruction should be on observable behaviors and skills. The learning skills are hierarchically sequenced such that more advanced skills cannot be learned before less advanced ones. The difference between more complex and less complex learning and problem solving is a matter of the number of observable skills that the learner has mastered. According to behavioral

learning theory, assessment should focus extensively on the observable outcomes and not on the unobservable cognitive processes (i.e., the use of cognitive learning strategies) that underlie observable changes in behaviors and skills.

Wiggins (1990) defines assessment as a direct examination of student performance on worthy intellectual tasks. Assessment requires students to be effective performers with acquired knowledge. Traditional tests tend to reveal only whether the student can recognize, recall or “plug in” memorized context. Performance-based assessments present the student with a full array of tasks that mirror the priorities and challenges found in the best instructional activities; these tasks include conducting research, writing, revising and discussing papers; providing an engaging oral debate and much more. Conventional tests are usually limited to paper-and-pencil, one-answer-only questions, whereas performance assessment achieves validity and reliability by emphasizing the appropriate criteria for scoring various products.

Much of the discussion of assessment of student learning has been built upon the early work conducted at Alverno College. Faculty there began to use the term “assessment” to describe the process of measuring a set of student abilities (such as communication, analysis, and problem-solving) that were identified as essential in student learning (Loacher & Mentkowski, 1993). While much of the literature about assessment continues to emphasize student learning, institutions are beginning to frame assessment as an integral part of their continuous improvement strategy. This broader perspective highlights the entire educational purpose of the institution or academic unit from a mission-driven perspective.

Gelmon (2000) states, “assessment is concerned with learning and is a process that depends upon formulating questions and developing evidence to answer those questions.” While this process may seem similar to “education research” or “program evaluation,” the primary emphasis in assessment is twofold: on learning about learning, and using that learning for short-term as well as long-term curriculum development (p. 85)

Herman (1992) believes good assessment is built on current theories of learning and cognition and grounded in views of what skills and capacities students will need for future success. To many, good assessment is also defined by what it is not: standard, traditional multiple-choice questions.

According to cognitive researchers, meaningful learning is reflective, constructive, and self-regulated (Bradsford & Vye, 1989; Marzano, Brandt, & Hughes, 1988). To know something is not just to have received but have interpreted it and related it to other knowledge one already has.

Baker et al. (1993) commented that validity of an assessment depends on the degree to which the interpretations and uses of assessment results are supported by empirical evidence and logical analysis. She also stated there are five internal characteristics that validate assessment: it should have meaning for students and motivate high performance; it should require the demonstration of high order thinking, applicable to important problems; it should illustrate current standards of content or subject matter quality; it should minimize the effects of skills that are irrelevant to the focus of assessment and finally, it should possess clear standards for rating or judgment.

Angelo (1995) outlined nine properties for increasing learning in the classroom.

He said that students learn more when they:

1. actively engaged in their academic work by asking students to periodically write a brief summary of their lecture;
2. set and maintain realistic expectations in producing a learning goals;
3. keep a log of their own ways of working so that they can monitor, direct, and redirect their energies;
4. provide and use regular, timely, feedback via one minute paper;
5. connect new information to prior knowledge through a simple questionnaire;
6. organize their learning in meaningful and academically by means of concept maps or charts;
7. experiment with real-world applications of classroom learning;
8. work regularly and productively with instructors and other students by assessing each team and
9. invest time in keeping track of both the quantity and quality of their work with logs. (p. 31).

Ewell (1997) argues that the lack of success in learning stems from two common flaws in higher education strategies. First, initiatives have been implemented without a deeper understanding of what “learning” really means and which strategies are likely to promote it. Second, other initiatives have been “piecemeal” within institutions. Angelo (1999) agrees that most assessment efforts have resulted in little learning improvement

because they have been implemented without a clear vision of what “higher” or “deeper” learning is and without an understanding of how assessment can promote such learning. Angelo goes on to propose that the piecemeal attempts stem partly from a survey addictive model of assessment, which needs to be replaced by a new assessment method.

Creating effective assessment tools requires thinking through curriculum content, establishing learning outcomes, then designing performance activities that will allow students to demonstrate their achievement of those outcomes, and specifying criteria by which they will be evaluated (Wiggins, 1990).

Some view assessment as a mechanistic and technical process. They see it as a collection of monitoring devices than can be dropped into or added onto existing academic classes. Others consider assessment as program evaluation and compare it to going to accountant at tax time or see it as adding data-collection and reporting processes here and there.

Work on assessment in education has contributed to development of a set of “good practices” for assessment (Wiggins, 1998; Banta, Lund, Black & Oblander, 1996; Angelo & Cross, 1993). Some practices have evolved and been validated as guidelines for successful assessment activities. Angelo’s *10 Guidelines for Assessing as if Learning Matters Most* (1999) is one example of a highly successful tool used in many higher education institutions. Many of these assessment guidelines can be transformed into service-learning assessment practices that should help students develop the skills and knowledge necessary to be successful in service-learning.

Brief History of Service-Learning Assessment

At a recent conference in Berkeley, researchers discussed the history of service-learning assessment. At one conference luncheon, Eyler (2001) spoke to attendees on the topic of "*What do we most need to know about the impact of service-learning on student learning.*" She stated, "The service-learning field is surveyed out! We need to begin looking at other assessment tools/methods for measuring our learning goals and objectives" (p.15). Survey research over the past decade has provided ample evidence of the impact of service-learning on the personal and social development of college students but the evidence for its cognitive impact is less well developed.

In order to improve the quality of academic service-learning, we need to move beyond surveys and identify the intellectual outcomes best facilitated through service-learning, create measures of those learning outcomes that can be embedded into the instructional process, and conduct experimental studies of alternative pedagogical techniques to identify those which produce optimal learning and cognitive development. (Eyler, 2001, p.18)

In her article entitled "*At a glance: What we know about the effects of service-learning on college students, faculty, institutions and communities, 1993-2000,*" Eyler summarized all the service-learning research studies to date. She divided the studies into three categories: quantitative, qualitative and both. Out of 133 studies performed before 2001, 73 of the studies have been quantitative only, 33 had a qualitative aspect and the 27 remaining studies used a combination of quantitative and qualitative. Of the 73 quantitative studies, 71 used pre/post self-reporting surveys. She concluded that most of

these studies were repetitive and although were done with good intentions, no meaningful assessment took place. She also noted that all but a few service-learning assessments were performed using one of the following three survey instruments: UC Berkeley's (Furco, 1997), Portland State University's (Gelmon et al., 1998) or Vanderbilt University's (Giles & Eyler, 1999).

One would assume that assessment of service-learning efforts is an integral part of understanding the impact of these efforts. Yet in contrast to the scope of service-learning programs and activities, relatively little assessment evidence has been developed. Gelmon (2000) suggests that a significant gap exists in research addressing assessment studies—not only learning about outcomes of service-learning, but learning about different aspects of service-learning that can be assessed. It is necessary to develop new methods for conducting such assessments.

Bringle and Hatcher (2000), advocate that service-learning practitioners must devote more resources to conducting systematic, scientific survey assessment of service-learning outcomes across students, faculty, institutions, and community partners. This type of scientific assessment with meaningful indicators of educational outcomes represents a public, peer-reviewed, and replicable type of information gathering that is important for increasing confidence among practitioners. This reliable data would provide justification to support the expansion and recognition of service-learning academically, and would develop theory to enhance our understanding of best practices.

Other service-learning researchers agree with this scientific analysis. Eyler and Giles (1999), Gelmon et al. (1999) and Furco (1997) produced self-reporting Likert scale

surveys to assess educational outcomes for service-learning. Each survey had educational indicators or predictors for learning and some showed significant areas of educational growth. Vogelgesang and Astin (2000) also produced several pre/post self-reporting surveys, which have measured behaviors, values and learning.

Unfortunately, other research scientists and practitioners have had a hard time replicating these surveys. Howard (2000) states that many service-learning programs have unique characteristics, which are too detailed or arbitrary. These inconsistencies lead to gross misconceptions about the significance of educational growth in service-learning when using one of the three survey instruments mentioned above.

Shumer (2000) argues that the purpose of service-learning is to measure humanistic learning growths. He deems that most service-learning researchers are “positivists” which measure “reality” learning through carefully planned, empirical studies, orchestrated by using mathematical and scientific models with impersonal approaches. Researchers then interpret the data in an objective process. Shumer contends that in this process, the researcher’s methods remain at a distance from the study and eliminate the possibility of human contamination.

In contrast, Shumer (2000) believes that there are a few service-learning researchers that are “interpretivists” who determine “reality” through personal involvement; an attempt to learn what the world is like from the perspective of the “other person.” He suggests that the researcher must be connected to and spend time with the study (through either human interaction such as interviews, observations, etc.) He believes that if researchers performed as “interpretivists,” service-learning students would

not only understand current social conditions, causes of power, and economic inequities, but also would understand how to contribute to social change.

There are many approaches to assess and evaluate service-learning and each approach involves answering different questions. To insure validity, the approach should adhere to many methods. “Positivism” or self-reporting surveys are currently the choice among most service-learning institutions. According to Shumer (2000), “Although these surveys provide useful information, they are not sufficient to support the dynamic, change-oriented and often idiosyncratic patterns of service-learning” (p.77). Qualitative and interpretive assessment approaches attempt to provide the human story—what happens and how it happens to those participants engaged in the experience. It is usually the robust stories about the lives of those who participate in service-learning that will ultimately provide the substantive data about its value and effectiveness.

Student Assessment-as-Learning: Using Feedback

In order to evaluate student’s abilities, Alverno College faculty developed the concept of assessment as a multi-dimensional process of judging the individual student in action. Course-based and integrative assessments, which focus student’s learning from several courses, draw out samples of performance representing the expected learning outcomes from a course or program. Faculty and other trained assessors observe and judge a student’s performance based on explicit criteria. Methodical feedback, as well as the reflective practice of self-assessment by each student, helps create a continuous improvement process for learning. They call this process assessment-as-learning.

At Alverno, Mentkowski et al. (2000) identified six major themes in the student learning perspectives: developing conceptual abilities, developing interpersonal abilities, experiential validation of curriculum and experiential learning, developing skills for independent and social learning, identify development as a learner and professional perspectives on the college as a social environment. Students identified several key features of the curriculum that supported their learning, including the student assessment process (with its focus on performance, self assessment, and feedback), experiential learning, classroom discussion, and work in groups.

Several contributors have pointed out that assessment information is not very useful if it does not affect decision-making. Others have noted the value of collaboration and how important it is for successful assessment. Educators want to engage students in assessment efforts, both as users of the information and as collaborators in the efforts to produce it. As a result, students can benefit not only from assessment information but also from involvement in the assessment process. Educators may get some valuable reciprocal feedback as well.

When designing assessment projects, most educators expect students to help generate valuable assessment information. Students participate in classroom activities, prepare portfolios, take tests, complete inventories, fill out surveys, and share their opinions in focus groups. They provide evidence of their learning and reflections on their growth.

One way for educators to improve programs and learning is to provide feedback to students about their assessment efforts and results. A number of assessment experts

have argued persuasively for the use of feedback, whether assessing learning in general education, the major, or other classroom components such as service-learning.

Wiggins (1998) has been one of the most effective voices in arguing for the use of feedback as a way to improve student learning. Wiggins believes that assessment should teach as well as measure and that it should provide “rich and useful feedback to all students and to their teacher” (p.43). One of the strongest trends in assessment is to embed the collection of information about learning into everyday classroom activities. When doing this, the collection of assessment information for programmatic purposes is not obvious to students. Embedded assessment activities are seen as a natural part of the learning process and issues of student motivation are maximized. In addition, many opportunities to provide feedback about learning are available. Wiggins argues, “feedback is most effective if it occurs along with assessment activities providing commentary that is ‘rich, clear, and direct enough’ to help students self-assess and correct their performances” (p.45). He urges educators to assess how well students are able to use the feedback they receive and often suggests small classes where the educators can measure the feedback tool.

In the Alverno study, the college assessment culture appeared to affect the way feedback was given, received and used. Students believed that feedback was given in such a way that they did not feel rejection or discouragement. It did not place an unbalanced focus on negative aspects of performance. They experienced it as supportive criticism that reinforced the principles of effective interaction that they were learning.

Students received feedback from instructors, peers, and outside assessors and mentioned that the feedback process was important to support their learning and motivation.

Within the last decade, student self-assessment has received serious consideration as a valid means of assessment. For example, Tierney, Carter and Desai (1991) assert that student self-assessment is at the heart of the assessment movement. They claim that there is no reason why students cannot assess themselves on *all* content and learning standards.

Out-of-class activities such as service-learning also provide students with feedback and opportunities for self-assessment. According to Jacoby (1996), service-learning is based on the principle that learning and development occur “as a result of a reflective component explicitly designed” to foster this growth (p.25). Jacoby believes that reflection on service-learning can be as important as the experience itself. She argues for many forms of reflection including individual and group, as well as oral and written, and believes that feedback should be provided by program leaders, peers, and the individuals who are served (community partners).

In order to take more responsibility for developing abilities, learners need an increased understanding of what they are doing in relation to what they aim to do. Being aware is an essential part of learning. If the learner understands what is clear and meaningful about a theory or framework, they can then determine future strategies for effective production. A successful, active and reflective learning process includes learner engagement, self-assessment, and feedback. Reflective self-assessment helps learners to shape future performance based on understanding both their past and present work and their intellectual processes (Mentkowski et al., 2000).

Mentkowski et al. (2000) also examined how course elements support self-assessment and awareness of self in a variety of ways: the use of clear abilities, performance criteria that integrate knowledge and ability, discussions with peers and faculty, and the regular use of feedback on performing and learning progress. Essentially, assessing multiple performances in diverse settings with supervisors and faculty, in groups and in reflection, leads to different kinds of mindfulness about learning. By making the interaction of performance and self-assessment an object of the student's learning, faculty give students more opportunities to be reflective and to thoughtfully consider their growth as learners and performers who are developing a professional identity.

The classroom assessment techniques popularized by Angelo and Cross (1993) include many assessment ideas that can be adapted for use with out-of-class service-learning as well as in-class service-learning reflections. Validating students' purposes and experiences is an important factor in making a service-learning curriculum meaningful and relevant. For example, most colleges have used surveys of student attitudes and satisfactions to market service-learning programs and faculty use student course evaluations and students' comments from class to improve teaching and learning.

Dewey (1938) believed that when students actively participate in their learning, they are able to construct knowledge that is personally meaningful and fulfilling. In his writings, Bruner (1961) promotes the idea that a student be viewed neither as a passive recipient of information nor as a bundle of stimuli-response connections. Instead, a student should be viewed as "one who selects and transforms information, constructs

hypotheses, and alters those hypotheses according to the evidence presented” (Anglin & Bruner 1973, p.59).

Importance of Interviewing and Focus Groups

Focus groups were originally called “focused interviews” or “group depth interviews.” The technique was developed after World War II to evaluate audience response to radio programs (Stewart & Shamdasani, 1990). Since then, social scientists and program evaluators have found focus groups to be useful in understanding how and why people hold certain beliefs about a topic or program of interest.

Brown (1994) has noted that the purpose of interviewing in qualitative evaluation is to find out what a program means to participants. Interview formats vary on a continuum from a highly structured, evaluator-directed question and response guide to an informal conversation whose focus and direction is guided by participants.

Krueger (1988) argues that focus group interviews can provide vital information on the impact of programs. Morgan (1988) explored the advantages and disadvantages of focus group interviews. Several advantages that are they provide the opportunity to collect data from group interactions, require less time than multiple individual interviews, are easier to conduct, and provide for group opinion formation. A few disadvantages to focus groups are that it may be impossible to discern individual’s perspectives, other participants may influence responses, group dynamics may effect data collected, and fewer questions maybe asked due to group size.

Overall, interviewing as many participants as possible in different contexts and across times throughout the program will provide a greater understanding of growing perspectives.

Assessment Methods/Choices in Assessment

Today, service-learning practitioners are longing for more operational definitions of what students can do, what skills they possess, and what problems they can solve. Definite emphasis is placed on higher-order thinking skills. This philosophy of performance assessment was developed in partial response to dissatisfaction expressed from current self-reporting surveys and traditional tests. Performance assessment is not a new concept. Some classic performance assessments include writing skills, typing, computer applications, science laboratory skills, and many more. All educators appear to want more hands-on assessments where actual student behaviors as well as products can be examined.

According to Payne's book, *Evaluating Service-Learning Activities and Programs* (2000), the following are among the most important general characteristics of modern performance assessment:

1. Value beyond the assessment itself – the assessment task should be meaningful in and of itself and not derive value just from being a “test”.
2. Student-created response – having a record of an actual student behavior observed and evaluated or an evaluated product brings criterion and assessment closer together.

3. Realistic focus – this characteristic relates to the contemporary need to show students that they are involved in “meaningful” (real-world) learning that will have an ultimate tangible payoff.
4. Application of knowledge – the need to measure problem-solving and critical thinking skills.
5. Multiple data sources – a variety of approaches will enhance validity and reliability and allow greater adaptability to individual student differences.
6. Objective-based and criterion-references – having objectives to guide development and interpretation contributes to the relevance of the assessment and its validity.
7. Reliability – consistency is a prerequisite in any assessment from administration to performance and scoring.
8. Multiple approaches – the student, with advanced notice, should have some latitude in determining how the assessment will be documented.
9. Multidimensional in structure – addresses the comprehensive integration and combination of skills and knowledge. (p. 74)

In relation to Payne’s characteristics, Stiggins (1987) offers another set of performance assessment characteristics:

1. Purpose – assessability to translate knowledge and understanding into action.

2. Typical exercise – written prompt or natural event framing the kind of performance required.
3. Student's response – plan, construct, and deliver original response.
4. Scoring – check attributes present and describe performance via story.
5. Keys to success – carefully prepared performance exercises, clear performance expectations, time to rate performance.
6. Influence on learning – emphasizes use of available skill and knowledge in relevant problem contexts. (p.35)

Each of these sets of characteristics shows the difference between performance assessment and traditional educational measurements. Performance assessment's advantage is that it can be both a teaching and testing method. Most service-learning practitioners are interested in the products of learning but are also concerned with *how* the student arrives at his or her product. Often the development of techniques or skills can be considered an end in itself or so intimately tied to the product as to be inseparable. The key to developing a performance assessment is motivation. Developmental situations in which an individual can exhibit real-life behaviors generally increases the relevance and accuracy of an assessment.

One crucial step in developing performance assessment is identifying the criterion or task analysis. Major aspects of task analysis include establishing criteria and standards, selecting elements for observation in relationship to their emphasis in the curriculum, and providing feedback to relevant stakeholders. Herman, Aschbacher and Winter (1992) suggested six criteria to be used for evaluating assessment tasks: matching specific

instructional intentions; representing content and skills expected to be attained by students; enabling students to demonstrate their proficiencies and capabilities; allowing assessment of multiple goals; reflecting an authentic, real-world context and allowing an interdisciplinary approach. All the criteria are important, but perhaps the greatest strength of performance assessment rests with the last two. Integrating a variety of skills is obviously more desirable than focusing on a single lower-level outcome. Credibility, which in turn influences student motivation, also will be enhanced if the task has at least “face validity” for real-world challenges.

As with most real-world tasks, performance tasks do not have a single correct answer. In general, there are a variety of ways to successfully complete them. Consequently, students’ performance of tasks cannot be “machine scored,” but must be judged by one or more persons guided by well-defined criteria. The vehicle used to guide human judgment is a rubric. Rubrics provide the following: guidance for the educator and student throughout the evaluation of the performance; define excellence and user specific information to be judged; meaningful opportunity for learner self-assessment; and peer and educator assessment that avoids ambiguity or educational jargon (McBiles, 1998). Rubrics can also describe levels of performance and provide important feedback to teachers, parents and other stakeholders. Rubrics promote learning by offering clear performance targets to students for agreed-upon standards (Marzano, Pickering, & McTighe, 1993). Rubrics are usually presented to students along with the performance tasks. Developing rubrics can be quite time-consuming, but they can offer students the best in performance assessment.

Developing a performance assessment is similar to developing any measurement, and includes the following steps: analyzing the desired performance; identifying crucial and representative elements for observation; selecting an appropriate motivation task; specifying the sequence of tasks that incorporate these crucial elements; preparing directions for students; developing methods for recording results and analyzing reliability and validity. In short, performance assessment can be complex in design, yet provides an invaluable source of feedback that ultimately increases student learning.

Performance Assessment Techniques

There are many different types of assessment techniques. One particularly useful performance assessment technique involves collecting and evaluating student work in a portfolio, not unlike that of a photographer or architect. Portfolios are usually files or folders that contain collections of a student's work. They furnish a broad portrait of individual performance. For example, artists and writers carry their completed, polished works in a portfolio to show capability to prospective clients. Academic portfolios have received a great deal of attention in the past decade, particularly in the area of writing assessment.

In performance-based assessment, portfolios include "physical evidence" of students' ability to meet content and lifelong learning standards. It is quite common for standards to be transformed into categories for portfolio assessment; that is, a student provides physical evidence for achievement by grouping the standards into one category. For example, in a portfolio, a student may write an essay expressing her feelings as an illustration of her effective communication skills, but she may include a detailed

description of her service-learning project demonstrating her competency in collaboration and critical thinking skills (Marzano, Pickering, & McTighe 1993).

Arter and Spandel (1992) defined a student portfolio as a “purposeful collection of student work that tells the story of the student’s efforts, progress, or achievement in given areas. This collection must include student participation in selection of portfolio content; the guidelines for selection; the criteria for judging merit; and evidence of student self-reflection” (p.37). The systematic use of portfolios is a natural outgrowth of educators’ desire to cast a more human perspective on how we evaluate and to diversity the methods so that we get a better match with instruction. Some advantages of portfolios are:

1. Students are responsible for collecting materials of learning, making it more natural.
2. It provides a vehicle for the student to exhibit achievements that are relevant to him or her, the instructor, and other stakeholders.
3. It provides an opportunity to track progress and growth over a semester, a year and to demonstrate a final level of performance.
4. It puts students at the center of the instructional process.
5. It enhances student self-evaluation skills.
6. It assesses proficiency.
7. It provides an on-going picture of performance.
8. It represents tasks that are realistic to everyday academic and real-world expectations.

9. It provides student with an ownership opportunity for their learning with evidence of accomplishments.

Make no mistake about it, portfolio assessments are messy to use, costly in time and effort, and potentially suffer from a serious problem of reliability of scoring, but to many educators, the benefits significantly outweigh the challenges.

Some other types of performance assessment techniques (which can also be included in a portfolio) include art projects, essays, journal entries, posters, short stories, interviews, pre/post videos, letters, analytical papers, poetry, self-assessments, evaluations, and test results. Projects are comprehensive demonstrations of skills or knowledge and require a broad range of competencies. They are often interdisciplinary in focus and require student initiative and creativity. In most cases, students will have to do a presentation in class or before other audiences. They can also take the form of competitions between individual students or groups.

Group projects enable a number of students to work together on a complex problem that requires planning, research, collaboration and final group presentations. Group projects are particularly attractive to service-learning practitioners because it facilitates cooperation and reinforces a valued outcome. Projects can also provide valuable information about outcomes including knowledge of content areas and beyond class material, application planning, research skills, demonstration of evidence, organization, time-management, process analysis, cumulative information, investigation, comprehension, and planning. For example, a student in service-learning could produce a

product or plan at the end of the semester and present it to the community partner's stakeholders.

Interviews or oral presentations allow students to verbalize their knowledge. An obvious example of oral assessment occurs in a foreign language courses. Oral presentations can provide valuable information in the form of speaking and listening skills, debating, complex reasoning, decision-making skills, interpretation, and acquiring new languages and mannerisms. As audio and video become increasingly available to record performances, the use of oral presentations for assessment are likely to increase. For example, a student enrolled in a service-learning Spanish course could help a migrant worker learn how to read and write English. The student then could do a pre and post video to document their progress throughout the semester.

Essays have long been used to assess a student's understanding of a subject through a written description, analysis, explanation, or summary. Essays can demonstrate systematic organization, comprehension, research skills, vocabulary and expression ability. Answering essay questions effectively requires critical thinking, analysis and synthesis. For instance, a service-learning student may write a pre/post analytical essay about the effects of homelessness and a certain population of people at their service site.

There are many sources of information about service-learning success. No one source or measurement is necessarily better than another. Each measurement can provide useful and varied information about service-learning success. Interpretation of the findings is valid only when linked to the circumstances under which the service-learning performance is assessed. The most accurate profile of student achievement is based on

the findings gathered from assessing service-learning performance in a variety of contexts.

In summary, the major advantage of using performance assessments is the involvement and investment of the student in a process that directly relates to instruction. The disadvantage is the time and effort needed to create rubrics and applying them systematically.

CHAPTER 3

METHODOLOGY

Students need the chance to directly connect books and experience, ideas and introspection, to continuing activity in the community.

Robert Coles (1993)

Introduction

After reviewing the literature, it is clear that there is a need for better assessment tools to measure the impact of service-learning on students. The literature review also indicated that while there were some tools available, most were not well developed and many came in the form of surveys. These current tools do not properly reflect the type of educational outcomes that service-learning practitioners are now discussing and working with. This study addressed this problem by developing the Service-Learning Assessment Toolkit (SLAT), which consists of three sets of rubrics, skills check-list, abilities enhanced by service-learning sheet, student focus group questionnaire, instructor focus group questionnaire, and a student personal improvement plan.

Purpose of the Study

The study sought to go beyond the limited scope of previous studies by researching assessment and evaluation tools in a methodological, comprehensive way. The primary purpose of this research was to study previously un-addressed issues regarding the educational development of students in service-learning programs. Specifically, could performance-based rubrics be used as an effective, qualitative measure of service-learning outcomes? Several different kinds of tools were examined to address this question.

In particular, this study used sets of performance-based assessment rubrics to measure students' development across the six target constructs identified in Chapter One:

Academic Growth - student's high order thinking and self-knowledge of own learning expectations. Motivation toward a future of lifelong learning.

Career Exploration - student's learning and personal development of career opportunities. Makes decisions that are discipline related and concentrates energies on deepening their understandings. Fully integrates service into career choices.

Ethical Growth - students' exploration of surrounding communities and becomes advocates of ethical behavior and justice. Gains new insight about others' moral challenges, injustices and misconceptions.

Social Growth - students' perceptions toward social justice, racism, classism, and economic status. Ability to sense a shared purpose of social impact with racially and culturally diverse populations.

Personal Growth - students' choices that demonstrates the integration of information they gain about themselves through self-discovery. Identify connections with other students who share same personal values, sense of satisfaction and accomplishment.

Civic Participation - students' commitment to become involved in activities outside their normal community.

Research Questions

The study addressed the following questions:

1. How do performance-based evaluation techniques influence service-learning development and growth?
2. How can each of the following evaluation tools be effectively used or adapted to assess benefits of service-learning:
 - a. Instructor Rubric
 - b. Student-Friendly Rubric
 - c. Scoring Rubric
 - d. Service-Learning Improvement Plan
3. What evaluation scheme provides the most compelling profile of student achievement as a result of service-learning programs?

These three questions guided the research design and data analysis.

The first question was designed to determine the use of performance-based rubrics in measuring the improvement for the six service-learning educational target outcomes. For example, could the use of rubrics and other evaluation techniques have some bearing on service-learning development? This question supports earlier research findings about evaluation and assessment techniques. There is some research evidence that suggests that techniques, in general, have positive educational outcomes for students. These findings, however, have not been decisive.

The second question was designed to determine effective strategies for implementation of evaluation tools when assessing service-learning. To maximize their

benefit, the tools need to be integrated throughout the course, with full understanding by both the instructor and the student. Implementation of the tools is very important to this research. Each tool was investigated to determine if it enhanced the service-learning experience. This question also helps determine which tool is the most appropriate for the purpose of the six educational target outcomes.

The third question was designed to evaluate the best performance-based assessment technique for student achievement information in service-learning programs. For example, is the use of “Student-Friendly” or “Instructor” rubrics considered better to measure student achievement? This question also contemplates student achievement using the different assessment options available from the SLAT.

Embedded within each of these questions are many other questions. For example, which SLAT provides the best student achievement information and are most influential to the student? Are the SLATs effective instructional tools for practitioners? What extensive training needs to be performed before the SLATs can be utilized? Will the students understand the SLATs? Were the elements and criteria applicable to all service-learning programs? While these and other questions are interesting and have implications for potential research, they are not the focus of this study. However, it is hoped that the findings of this study will help provide direction for future investigation of these and other questions.

Research Design - An Ethnographic Look

Among scientists who debate the benefits and pitfalls of qualitative versus quantitative research, ethnographic research is gaining ground; at the very least, it is becoming more fully understood. It is also gaining favor among researchers for the growing reliability and validity of its results and its appropriateness for many types of studies. This study is one such study. Given the goals and requirements of the study, it was served best by an exploratory ethnography on two fronts. First, previous service-learning research suggests that ethnographies can sufficiently provide detailed insights into students' learning growth outcomes. Similarly, many service-learning researchers agree that because of their open and flexible methods, qualitative studies are essential for exploring effects of service-learning on students' academic performance. Second, the use of performance-based rubrics as an assessment tool has not been researched prior to this study.

This following, therefore, provides an overview of ethnographic research and how it applies to service-learning research. It then details how an exploratory ethnographic design was developed and applied to address this study's research questions.

Ethnography in Service-Learning Research

While several critics have called for more quantitative research on the effects of service-learning on participants, most agree that qualitative methods provide the richest and most comprehensive accounts of the pedagogical effects of service-learning. Especially in these early stages of understanding outcomes, qualitative research allows us to explore these outcomes in a broader context.

Conrad and Hedin (1990), for example, stressed that “quasi-experimental designs” provide a needed broader context. Similarly, Quarmby (1982) underscores the need for employing participant-observers, while others argue that qualitative methods are most useful for service learning assessment. Many notable studies on service-learning employ this methodological design, such as Smith’s study (1993). Critics likewise stress the need for such designs when assessing the academic programs of students in service-learning, (i.e., Chickering and Eyler). With its open-ended questions, variety of means, and constant reinterpretation of data, ethnography allows researchers to more fully explore the entire learning environment inherent in service-learning.

While the service-learning field lacks definitive qualitative findings, quantitative analyses, in and of themselves, may not be able to capture the total essence of a service experience (Gray, 1996). According to Shumer (1994) and Hicks and Hirsch (1991), there is a limit to the depth of information one can gather about students simply through quantitative research. Hicks and Hirsch explain, “Personal interviews and/or focus groups with students could provide a credible base of qualitative information to back up and flesh out the data and substantiate the informal anecdotal evidence that currently exists” (p.10).

Study Design

Given the complex and idiosyncratic nature of service-learning programs, the researcher sought to collect a wide range of data from a variety of data sources by using qualitative methods and case study approaches.

As an exploratory ethnography, this study had the potential of shedding new light on the possible ways to assess educational development of students in service-learning programs. It was hoped by the researcher that this study would help instructors establish service-learning outcomes and use an effective set of tools to measure learning growth. The tools designed by the researcher include outcomes and goals that are specifically relevant to service-learning programs. The outcomes have real-life implications that empower students to analyze, evaluate and synthesize practical problem-solving situations.

In order to optimize validity, the researcher used a naturalistic inquiry with observation and interviews. The researcher was a non-participant observer in a natural setting. The researcher used individual case studies, field notes and a field diary. The researcher utilized various aspects of qualitative research such as: observations, portfolios, reflection journals, pre/post videos, audio-taping, focus group interviews, student personal interviews and instructor interviews. All interviews were conducted in a structured or semi-structured, casual and retrospective style. Most of the interview questions were designed before the interview but in some cases, the researcher used informal interviews. These sessions were designed where students could have casual conversations by asking participants to recall and then reconstruct or reflection on experiences. The researcher analyzed the data by synthesizing the information obtained from the observations, interviews, portfolios, reflection logs, videos, email prompts, and presentations. The researcher coded each interview and session for common themes. The

researcher used a second instructor in order to confirm and support the research questions.

As service-learning programs become more prevalent in institutions, it is hoped that the findings of this study will assist educators in making better judgments about the educational roles that service-learning programs play in higher education. As seen in Appendix A, there are many common standards defined by service programs that instructors employ in a variety of teaching strategies.

Methodological Challenges

The complex nature of students' educational development poses serious challenges to researchers who seek to find casual linkages between what happens to students during school and actual changes in their overall behavior. Without a highly controlled experimental study design, definitive causal linkages are virtually impossible to affirm.

One major obstacle during the study was the difficulty of adequately controlling for competing and puzzling influences on students. Throughout their day, students were exposed to multiple settings such as work, family, and friends simultaneously with their involvement in the service-learning programs. Complicating matters further were issues such as the number and nature of students involved, the program start and end dates, the times of the day during which students were involved and the types of service-learning activities in which students engaged. This variety resulted in a number of unanticipated variables that required consideration in the data analysis.

Unfortunately, the most effective means of controlling for these variables, an experimental design with random assignment of participants into control and experimental groups, was not feasible. As a result, the approach used for this study was a quasi-experimental, non-equivalent control group design that compared student learning growths at the start and the end of the program. This approach allowed the researcher to monitor the educational development of five students as they progressed through their respective service-learning experiences. The researcher acted as an observer-as-participant by identifying herself straight off as the researcher and making no pretense of being a member of the group of individuals she is observing.

Focus Groups and Pilot Study

During the initial phase of this study, the researcher reviewed several service-learning studies (Furco, 1997; Eyler & Giles, 1999 and Jacoby, 1996) for common educational themes. After reviewing the literature, the researcher designed a four-page student focus group questionnaire (see Appendix B). The questionnaire consisted of a series of questions from each of the six common educational targets for service-learning programs: Academic Growth; Career Exploration, Civic Participation, Ethical Growth, Personal Growth and Social Growth.

The researcher then met with four Arizona State University service-learning students and two outside observers to discuss the development of the Service-Learning Rubrics (SLR). The students were identified as Focus Group 1. The researcher recruited these four students because they committed to a yearlong service-learning program with the researcher. These students were experienced, had “expertise” in reflection, and had

first-hand knowledge of service-learning skills. The meeting was audio-recorded and an outside consultant transcribed a written transcript.

The researcher explained the six common service-learning educational targets to each of the participants but not in great detail, so as to not influence participants' opinions. The researcher started the session by asking each participant to explain why he or she participated in service-learning. The student's stated that they participated because they felt the need to give back to their community and to explore career possibilities. The researcher then asked questions from the established focus group questionnaire. Each participant discussed their learning growth in detail, described their experiences, and specified the element areas in which they felt most of their learning occurred. The two outside observers took very detailed notes and translated the students' ideas into educational phrases for the researcher. The researcher maintained a "silent contributor" observation and occasionally asked students to delve further into their explanations. The researcher also did not want to appear to "bias" any of the focus group members answers.

Some participants also strongly felt they needed a choice of assessment options. Many of the participants agreed that there should have been other assessment options instead of just the reflection journal. Two participants commented that they "felt by getting an 'option' they would have had a choice in how they were going to be assessed and probably would have given their "all" to the project." The participants suggested the use of videos and dialogue journals for future use and that students should get an option on how to be assessed. All three also talked about the need for continuous feedback throughout the whole service-learning experience.

Afterwards, the researcher compared Focus Group 1's transcription notes to other research literature. The researcher noticed several similarities. The researcher proceeded to develop a set of "element areas" and established criteria for each educational learning target. Next, performance-based rubrics were developed for each educational learning target.

Subsequently, the researcher met with an assessment expert (McBiles, 2000) several times to discuss the rubrics. The expert helped designed the set-up of the rubrics and gave ideas for additional assessment options. The expert also suggested that the researcher should probably pilot the rubrics during the following semester. In addition, the expert suggested that "original rubrics should be used as an instructional tool for program coordinators and practitioners" (personal communication, October 2000). The rubrics were then entitled "Academic Growth Rubric, Career Exploration Rubric, Civic Participation Rubric, Ethical Growth Rubric, Personal Growth Rubric, and Social Growth Rubric." (see Appendix C).

The following semester, the researcher piloted the rubrics as suggested in a math (MAT 156 – Theory of Elementary Mathematics) course, over a 15-week semester at Paradise Valley Community College. The primary aim was to field test the rubrics for use in the service-learning component of the course. The secondary purpose was to receive feedback from participants and practitioner about the practical use of the rubrics. There is no research literature about the use of performance-based rubrics in service-learning, hence the pilot test was necessary to inform the researcher about the direction of dissertation inquiry.

Prior to the pilot study, the researcher met with the instructor to discuss the rubrics and do a little basic training. The instructor considered using all six rubrics but decided that each student should only use three rubrics. The instructor agreed to pick two (academic and career) rubrics and let the student have a choice of the third rubric. The researcher also arranged to train each student on the use of the rubrics.

The researcher proceeded to ask for volunteers in the first week of the math course. Six female students, ages ranging from 18-27, agreed to participate in the pilot study. Each student was required to complete a minimum of 15 hours of service-learning and provide the instructor with a portfolio and a written reflection journal as evidence of service-learning activities. The students arranged to meet with the researcher at least six times over the course of the semester and granted the researcher permission to email them with questions and reflection prompts. The students and instructor also agreed to let the researcher receive final copies of all reflection activities.

Throughout the semester, students emailed the researcher with questions and reflection responses. The group met two times prior to the mid-term and three times after to discuss each rubric and the elements necessary to demonstrate growth. Four students could not understand the “instructor” rubrics. They stated:

“Do I need to pick an extra assessment option PLUS the portfolio and journal?”

“They are confusing and use big words.”

“It is complicated to understand.”

“I have never used rubrics before and it was hard for me to get a grasp on how I was supposed to use it.”

“ I could understand some areas because I didn’t need a thesaurus to read it.”

“ In some areas it was evident on what you wanted, like the communication skills and bridges of work.” (Amy, Heather), personal communication, (November, 2000)

These same four students rarely showed enthusiasm in the pilot study and subsequently did not show up for some future appointments. Several admitted they were overwhelmed by rubric requirements and felt they had no time for extra work.

Only two students actually showed interest in trying to understand each rubric and element.

“At first, they were confusing but now I get them.”

“ I used them as a guide for my service-learning experience.”

“I could really see what you wanted.”

“The elements helped me understand service-learning but I come up with some more you could use.” (Jamie, Susan), personal communication, (November 2000)

These two students wrote comments on each area and showed examples of how the researcher could improve the wording of the rubrics.

At each of these meetings, the researcher asked participants if they had questions about the rubrics and also how they felt about the reflection exercises. Originally, all six students had questions about the required areas of the portfolio and what constituted proper evidence.

“Do I need to have an area for each rubric?”

“Some of rubrics tend to overlap, do we need to separate them?”

“What kind of evidence are you requiring?”

“What is an artifact? Can you give me an example?”

“How much or how many pages does the instructor want for the reflection journal?” (Amy, Heather), personal communication, (November 2000)

Most participants said the reflection exercises made them really think about “the people in the community you see but don’t see” (Jamie), personal communication, (November 2000). They said the rubrics made them think more “critically” when processing their experiences.

Each participant submitted an end of the year portfolio and reflection journal to the instructor. The instructor in turn, photocopied the portfolios and written reflection activities for the researcher. Five of the six participants met at a final meeting with the researcher and discussed their service-learning requirement. Three of the five said they felt the requirement made them think about their future careers but expressed concerns with the rubrics.

“I still think they are hard to figure out.”

“You need to make less stringent standards” (Amy, Heather), personal communication, (November 2000)

Not surprisingly, the two participants who understood the rubrics felt that this was one of the best experiences of their lives.

“The rubrics really showed me the way through my experience. Like I wish we used these in our “regular” part of class.”

“I agree with her, when I wrote in my journal I used the rubric to come up with ideas to write about. It showed me the way.. I mean your prompts helped but for example, I would look to make sure I was communicating my skills at the site.”
(Jamie), personal communication, (November 2000)

The researcher never had time to meet with the instructor to go over each participant’s evidence or to discuss his reactions to the rubrics. Although, periodically during the semester, the instructor did comment that he was impressed with the results from the portfolios and written reflections that were submitted.

Findings from the pilot study were used to guide further dissertation inquiry. Student’s conceptualizations of the rubrics uncovered during the pilot study resulted in the construction of several new rubrics and instructional tools as well as revision of the instructor rubrics. In addition, pilot study results alerted the researcher to misconceptions or limitations in student and instructors thinking previously unforeseen.

The researcher next discussed the rubrics with a K-12 educator at a boy’s, college-prep, private Catholic school in Phoenix, Arizona. The 15-year veteran educator was experienced in both the use of rubrics and the service-learning processes. She distributed the rubrics to her service-learning students during the last two weeks of the academic year. Each of her students made several written comments but overall, had minimal changes to offer. They did comment that the rubrics were a bit “wordy” and could be more “user-friendly.” The educator conveyed her comments on the rubrics and offered some additional elements for consideration.

Consequently, the researcher met again with the rubric expert (McBiles, 2001) after receiving the comments from the pilot study and college prep students. The researcher and the expert discussed the dilemma of students not understanding the rubrics. The expert suggested the development of “Student-Friendly” rubrics. The researcher agreed that in order for the rubrics to be effective, students needed to understand them. The expert recommended students should attempt to interpret each of the six educational learning targets or growths. The researcher also believed that if the students helped design the new rubrics they would feel some sense of ownership.

The researcher and the expert also spoke about the option for the instructor to only use three rubrics for grading. The researcher decided that the instructor should have a choice in what rubrics they want to utilize. Both the researcher and the expert agreed, that in most cases, the Academic Rubric should be used because it directly supports the course learning. Both also thought that most instructors could use the Career Exploration Rubric because as a general rule, one reason why many students enroll in classes is to develop career related skills.

After the meeting, the researcher felt she needed another focus group. She asked for volunteers for “Focus Group 2” at Mesa Community College’s Service-Learning Center. There were four students who volunteered to participate in the group. The researcher explained each element area of the rubrics and the need for “Student-Friendly” rubrics. Each student gave opinions on all six rubrics and produced a very detailed and explicit description of their experiences. The focus group then discussed the main elements of the rubrics. They all agreed the rubrics were useful and would give them

valuable guidance for their reflections. Some commented that their instructor never gave them any “direction” for their journals. They mentioned the rubric should be used but the instructor rubric was “over their heads.” Before the four-hour meeting ended, the researcher gave each participant a copy of the rubrics and asked them to explain their understanding of each element on each rubric.

The researcher met again with Focus Group 2 one week later. Participants transcribed their analysis of each element. The focus group members were asked by the researcher to put their version into “layman’s terms” so that other students could understand the instructor’s rubric. Members put each category’s criteria into one-line interpretations and suggested a “checklist approach” be used as a method to periodically confirm learning growth. As a result, the researcher developed the “Student-Friendly” rubrics for each learning growth area. (See Appendix D).

The researcher also took many of the suggestions from both Focus Group participants and developed a Service-Learning Skills Check-List Form (see Appendix E). This list contains over twenty skills which students felt they achieved while doing their service-learning experience. The researcher believes that instructors would benefit from this list by using it as another instructional tool for expressing anticipated learning growths. The researcher also developed a form entitled “Abilities Enhanced by Service-Learning” (see Appendix F). This form encompasses common expectations and natural skills received from the six service-learning growth targets.

In order for service-learning to be effective in student learning, the researcher needed to develop a feedback mechanism for educators to use when evaluating student

performances. These tools are entitled “Scoring Rubrics” (see Appendix G) and would be used by instructors in order to provide Pre, Mid, End of semester evaluations. The rationale for these rubrics was to be in alignment with the current higher education reform movement of continuous, reciprocal feedback between the student and instructor. These rubrics also contain areas for the student to do a self-evaluation, get a peer or community partner evaluation, and ultimately, an instructor evaluation.

In addition, the researcher designed a “Service-Learning Personal Improvement Plan” (SLPI), (see Appendix H), which ideally would be used in conjunction with the “Scoring Rubrics” when doing evaluations. The form has two sides. The front side contains several areas for the student to express the strengths and weaknesses of their experience and also state evidence to support these areas. The remaining area on the front is for the students to convey a plan for improvement in their weak areas. The back contains four areas: Action Steps, Timeline, Monitoring/Evaluating and lastly, Reflection Insights on the process. Again, this is another tool to help instructors collect evidence of their students’ learning growth. This tool could also provide valuable reciprocal feedback about the service partners and sites.

Besides designing the “SLPI” the researcher also developed another form entitled “Types of Service-Learning Assessment Options” (Appendix I). The researcher found that while discussing different assessment options with instructors, the instructors wanted to know what information each of the assessment options provided. For example, what skills or information could be gathered from a reflection log. Most of the instructors

were also curious about the connection between the assessment option and the assessment strategy.

Recruitment and Sample Population

Drawing conclusions about a population after studying a sample is never totally satisfactory, since researchers can never be sure that their sample is perfectly representative of the population. In fact, because so many service-learning programs are idiosyncratic, any generalizations concluded from this study may not represent the overall population of service-learning programs. It is the researchers opinion, however, that the study participants were “typical” of service-learning students in general. Recruitment for this study was done at different times throughout the study. The researcher had to recruit volunteers to participate in both Focus Groups and the Pilot Study. For the actual study, the researcher visited the Service-Learning Center at Mesa Community College (MCC). At MCC, the Director of Service-Learning suggested that the researcher contact several faculty who had service-learning components in their courses. The researcher set-up an initial group meeting with four faculty members (English, Education, Political Science and Biology) to discuss the possibility of participating in the study. At the two-hour meeting, the researcher explained the process for the study as well as, expectations, goals and objectives of the study, and training on the rubrics. The researcher also clarified the requirements for participation in the study. These requirements included communication with students regarding the rubrics, collection of evidence or materials, release time for the researcher to interview students, disclosure of student’s phone and email address, evaluations, final grading, and periodic meetings with the researcher to discuss findings.

Only one instructor agreed to participate in the study. The instructor taught a First-Year Composition (ENG 101) course that had several students also enrolled in an Introduction to Education (EDU 250) course. The English instructor also had received a grant from the American Association of Community Colleges (AACC) to write a journal article about civic engagement in service-learning. The instructor hoped that by participating in this study, it would provide information necessary for her to write her article. The researcher trained the instructor on proper usage of the rubrics and specific timelines. The instructor arranged to use four of the six rubrics. In particular, she chose one rubric for all of the students to use: Civic Participation. The students would then be allowed to choose two of the remaining three (Career Exploration, Social Growth, or Personal Growth). The instructor also agreed to be the researcher's second resource for data collection and confirmation of support.

The researcher went to the instructor's second day of class to ask for volunteers in the study. More than twelve students signed up to participate. There were eight female and four male volunteers with ages ranging from 18 to 32. Three of four males were 18 and one was 26. Six of the eight females were 18 and the other two were 23 and 24 years old. Ten of the twelve participants were education majors (9 females, 1 male) and the three remaining males were undecided. One participant was married (male) and all the rest were single, although several did admit they were involved in serious relationships. Every participant had a job, working an average of 20-30 hours a week. All participants were carrying full-time course loads (at least 12-15 credits) and were considered to be of freshman or sophomore standing. Each participant approved the release of his or her

email address and phone number to the researcher. Conveniently, all participants planned to work at the same community partner site Community Asset and Resource Enterprise Partnership, Inc. (CARE), which provided after-school tutoring, mentoring, role modeling and basic recreational programs for at-risk children. The participants and the instructor were given verbal step-by-step instructions for each evaluation tool (see Appendix J).

To ensure full cooperation from all constituents, formal approval was obtained from the community site personnel, community college administrators, institutional review boards and the students. In order for the researcher to approach students outside the classroom setting, certain guidelines were established. These protocol guidelines included pre-approval of site visits and pre-approval of interview questions. This allowed the instructor and site partners to have veto power over each meeting for the study. These strict guidelines also defined when, with whom, and where the researcher could collect data.

While these guidelines were an understandable attempt to protect the students, instructor, and community partners from any intrusions or disruptions the study might cause, these guidelines, did limit the researcher's ability to follow-up in some circumstances. For example, the researcher was not allowed to visit the classroom at potentially informative times. As the study progressed, a schedule was set-up and any changes needed to be approved by the instructor and community partner.

Instrument and Data Analysis

The study utilized the Service-Learning Assessment Toolkit (SLAT), which consists of three sets of rubrics, a skills check-list, an abilities enhanced by service-learning sheet, a student focus group questionnaire, an instructor focus group questionnaire, a form describing the types of service-learning options, and a student personal improvement plan, all designed by the author. The toolkit was developed because weren't any available sets of performance-based assessment tools that could properly assess service-learning growth outcomes and collect the relevant information on students' educational development. Basically, the SLAT is a compilation of a variety of instruments, measures, and guidelines that capture students' educational development through a variety of data sources. According to Chittenden (1991), it is essential that multiple strands of evidence be gathered when assessing student development over a period of time. Chittenden writes, "One legacy of conventional testing is the expectation that a uniform set of procedures, administered on a single occasion, can satisfy multiple and sometimes conflicting needs for information and evidence." This study sought to reveal how students evolve educationally throughout the course of their involvement in service activities. The periodic administration of the SLAT's instruments over an entire semester allowed for a fairly comprehensive assessment of students' progress.

The SLAT includes a set of fourteen data collection instruments, measures and guidelines (see Appendix L):

1. Instructor Rubrics;
2. Student-Friendly Rubrics;

3. Scoring Rubrics;
4. Service-Learning Personal Improvement Plan;
5. Service-Learning Skills Check-List;
6. Abilities Enhanced by Service-Learning Sheet;
7. Student Journals
8. Student focus group interviews (semi-structured); Appendix B
9. A content analysis of samples of student produced work (reflection journals, analytical summaries, portfolios;
10. Site visits and observations;
11. Instructor focus groups interviews (semi-structured); Appendix K
12. Informal meetings with site and school administrators;
13. Types of Service-Learning Options
14. Community Partner interview questions

Several of these instruments and guidelines were designed specifically to capture the full range of students' service experiences as they related to each of the six service-learning educational targets. A few of the tools were exclusively intended to enhance the instructor's explanation of service-learning, for example, the Abilities Enhanced by Service-Learning Sheet and the Types of Service-Learning Options. Together, they provided a comprehensive and rich data set that allowed for a variety of qualitative analysis to be conducted. Collectively, these data captured the essence of individual programs while providing a mechanism to analyze different and distinct programs uniformly. In addition, they allowed the researcher to more fully understand and interpret

the experiences of students within and across the various types of service-learning programs.

The breadth of the SLAT is revealed in Table 2, which lists each data source, describes the collection technique employed, provides a rationale or purpose for each technique, and describes how the collected evidence was analyzed. As Table 2 shows, each tool serves a variety of purposes. While most of the data are used to make serious statements about student development in each of the six service-learning educational targets, some of the data are used for descriptive purposes only. Because data were collected from students, instructors, administrators, and community partners, strong support among these data sources help strengthen the power of the findings.

Data Collection

While students served as the primary source of data collection, instructors and community partners also served as secondary data sources.

Data Collected From Students

The data collection began in the Fall semester of 2001 and ended Mid-Spring in 2002. During this period, the researcher made periodic visits to community sites to collect data and meet individually with participants. While the researcher made efforts to collect the various sources of data from the participants, some data to be collected by the instructor to accommodate students schedules. Along with the rubrics and other tools, other complementary data was collected from students including, direct observations, interviews, journals, samples of student work, and portfolios. Each of these data sources provided the researcher with additional information about the various aspects of the

program and the students' individual experiences. The direct site and classroom observations, for example, involved three to four visits to each of the sites. The researcher served as a non-participant observer in the classroom settings, focusing on only those students participating in the study. The observations and spontaneous conversations are recorded using field notes in natural settings. In each case, the researcher sought to capture evidence of student development in each of the six target areas. Comments from students, the nature of student interactions, comments from the instructor, and other references to students' progress in the various target areas were all noted. Because the emphasis of the research was on capturing educational outcomes and assessing the nature of individual students' progress, every effort was made to ensure students' participation was confidential. To guarantee privacy, the researcher gave each participant an "alias" identification name. In addition, the researcher received approval by the university's Institutional Review Board before conducting the study.

Data Collected From Instructor

In order to determine how instructors perceive the impact of service-learning the instructor was asked to participate in an informal short interview. This interview also clarified the way in which service-learning was incorporated in the course. The researcher used similar questions as in the Instructor Focus Group Interview (see Appendix K). In addition, the instructor gave a brief summary of how student assessment affected service-learning activities.

Data Collected From Administrator

The researcher was able to collect data about service-learning from the Program Director and Dean through informal one-on-one interviews. The Program Director served as a liaison between the researcher and instructor. He provided valuable information about the overall campus perceptions of service-learning. While much of the data collected from them was used for descriptive purposes, references to student performance were noted as well.

Data Collected From Community Partner

Because a goal of service-learning programs is to meet community needs, it is essential to hear the community's perspective about service-learning and the students who participate. Representatives from C.A.R.E provided first-hand observations of what the students learned from their perspective. The researcher had a few face-to-face and phone interviews with these site representatives. These interviews provided a wealth of information about site concerns with student learning. This information will be considered when drawing conclusions about the effect of service-learning assessment on students.

Qualitative Data Analysis

Collected data must be scored accurately in order for the researcher to draw good conclusions. Each rubric and tools was scored using exactly the same procedures and criteria. The researcher administered the instruments and collected most of the data from each site. In a few cases, however, the researcher was unavailable and the instructor

became the data collector. The instructor was trained by the researcher on how to administer the instruments and collect the evidence.

The researcher designed a matrix, which provided the framework for organizing the information gathered from all sources. The matrix sorted the outcomes of each rubric and helped the researcher identify recurring themes among the data. The following table enumerated the categories for data storage: (see Appendix M).

As the data was analyzed, quotes, observations, and other relevant information were stored in a “cell” corresponding to the type of assessment tool used. For example, data gathered from interviews of students using the scoring rubrics were put in cell 10. The matrix allowed for an enormous amount of data to be sorted and categorized as it was being collected throughout the study. In addition, the organization of the data in this manner allowed the researcher to observe central themes.

Criteria for Selecting Cell Data

Each matrix cell was simply treated as a pad of paper on which particular pieces of data were recorded systematically. Only data that was considered significant or relevant to the study were placed in the appropriate cell for analysis. To be considered significant, the data had to meet the following criteria:

1. The data had to make a clear and overt statement or comment or observed (positive, negative or neutral) about student development in one of the six target areas.
2. The data had to make a clear and overt statement or comment or observation (positive, negative or neutral) about the SLAT or assessment tools.

3. The statement, comment or observation had to be clearly relevant too specific site, classroom, instructor or study.

Some pieces of information were excluded from the matrix because they did not fit into any cell. For example, if a student gave a comment that was too generic (e.g. “it was cool”, “helpful”, “very exciting”), it was excluded. The comment or message had to be overt in trying to explain what area or tool was used. Besides having to meet these three criteria, no other filtering process was used in the data recording process.

One major challenge for the researcher was deciding where to put the information that crossed over into multiple areas. For example, if the student noted during an interview that: “I could really see the how class concepts were used in at my site..and it made me feel better when I looked at the Personal scoring rubric, I could see I was being challenged to think critically” (Jamie), personal communication, (November 2000).

The researcher had to decide to either put the information in the Scoring Rubric area or the instructor Academic Rubric area. The researcher realized there was crossing-over in some criteria or elements from different rubrics. Rather than working from a framework of underlying assumptions, all significant patterns, regardless of whether they supported or challenged existing assumptions, were analyzed. Emerging themes and patterns were coded. In order to reduce the likelihood that the identified themes would not be subjected to researcher-bias, the themes and supporting data were presented to the instructor during the study. The instructor’s input assisted in refining the themes and identifying alternative interpretations.

CHAPTER 4

FINDINGS

Service-learning in the curriculum is an effective learning experience for faculty as well as students, and a good approach to building faculty confidence and interest in public service.

Edward Zlotkowski (1999)

Qualitative Data Analysis

As Miles and Huberman (1984) point out, conducting case analyses, especially when several techniques are used, is difficult and cumbersome. The ability to utilize the Service-Learning Assessment Toolkit (SLAT) across service-learning programs is hampered by the idiosyncratic culture of each service-learning classroom and instructor. By providing some order and organization to the data collected, relationships among the data can be analyzed, and conclusions about the series of events can be drawn.

As stated in Chapter 3, the researcher used a naturalistic inquiry by studying real-world situations as they unfold naturally; without control and open to whatever emerges. The researcher employed a triangulation method to collect and analyze the data. She utilized observations, the SLAT, vignettes, and interviews from both groups. She also used the instructor as her second verification source. According to Miles and Huberman (1984), the researcher's role is to gain a "holistic" (systematic, encompassing, integrated) overview of the context under study. The researcher attempted to capture data on the perceptions, through a process of deep attentiveness and of empathetic understanding. From reading the materials gathered, the researcher isolated certain themes and

expressions that were maintained in their original form throughout the study. Miles and Huberman also point out that in qualitative research, there is relatively little standardized instrumentation used and therefore the researcher is essentially the main “measurement device” in the study.

The use of vignettes formulated core issues in this study, helped the researcher test theory, and offered an opportunity to engage study participants actively. As Erickson (1986) suggests, vignettes are a “vivid portrayal of the conduct of an event of everyday life, in which the sights and sounds of what was being said and done are described in the natural sequence of their occurrence in real time” (p.11). Miles and Huberman (1984) view that qualitative studies take place in a real social world, and can have real consequences in people’s lives; that there is a reasonable view of “what happened” in any particular situation.

The researcher considered alternative approaches to verification through feedback from the students and instructor. The feedback ranged from early/intermittent to late and was framed in well-structured to semi-structured questions. Miles and Huberman (1984) consider the validity of qualitative research be distinguished among the types of understanding that may emerge from a study: descriptive (what happened in specific situations); interpretive (what it meant to the people involved); theoretical (concepts, and their relationships, used to explain actions and meanings); and evaluative (judgments of the work or value of actions and meaning. They also believe in “natural” validity—the idea that the events and settings studied are uncontrived, unmodified by the researcher’s presence and actions.

Although this study did not reveal firm causal relationships between the use of the SLAT performance-based assessment rubrics and the six educational targets, this study did find that the use of the rubrics and other tools did cause improvement in general student performance. The educational targets' criteria tended to overlap, thus clouding the specific growth category. There is no doubt, however, that the SLAT rubrics did influence student development.

This study also captured some effective strategies for assessing service-learning educational outcomes. The emerging patterns and themes discovered in this study go beyond what most other previous studies have attempted to investigate. The following data sample represents responses from five students and the instructor. Data was collected and analyzed based on a two-group scenario, instructor or student.

As expected, analysis of the matrix (collection of information) revealed a general difference in tone between the data of the two groups studied. Both students and the instructor were enthusiastic and passionate when asked questions pertaining to their overall service-learning experience. Their tone was less enthusiastic and more detached when asked more detailed questions about evaluation techniques. Each group confessed that more training with the rubrics was needed. The instructor felt that a whole day training workshop by a service-learning expert was needed for instructors and practitioners. Several questions on both the instructor post interview and student post interview protocol questionnaires were almost identical in meaning (See Appendix N &

O). Below are excerpts from students and instructor responses.¹ The post student questionnaire number is listed first (e.g. #3-S would stand for question #3 on the post student questionnaire, the S denoting “student” questionnaire), followed by the corresponding post-instructor questionnaire with similar numeration scheme.

Post-Interview Question Summary

Questions #4-S & #10-I: *What did you learn from this experience?*

Students:

J: I learned that I wasn’t all that shy and I really received valuable skills. I saw how kids today are different than when I grew up. I was always taught to respect my elders but kids today don’t have respect for anybody. Maybe it’s because they don’t have real role models.

M: I made the connection between the class info and what I did at my community place. I always thought my writing was terrible but here they didn’t care about passive voice, etc. They actually asked me to write a brochure and office manual. By the end of the semester, I felt I could accomplish anything.

L: I had to really use my stuff from class in real-world settings and with real people. It wasn’t all theory, it was application. My kids at the school treated me like I was the teacher. They looked up to me. I felt responsible for their learning so I really cared what I said and how I said it.

¹ The statements are written as they were said at the post interviews. Misspelled words and grammatically incorrect phrases have been kept intact so that students’ and instructor’s intended wording or phrasing is not misrepresented. All personal communications were taken on November 30, 2001.

H: I have always been a really bad speller, and my grammar has always been atrocious. As I started this new adventure, I thought that I had not yet learned anything, and was uncertain as to what I would write about later. Time went on, and I found myself correcting someone's spelling and grammar. I was pleased and surprised at the fact that I had increased my knowledge, without even knowing it. This in turn gave me more confidence to speak up, and put some input into things. My supervisor seemed pleased with many of my ideas. Together we implemented several of these ideas into are work. On others we discussed, and we either scratched the idea, or improved upon it, and implemented it.

T: To be honest, I was kinda mad at first that I had to do this. I mean, I'm older than the other students in class and I have done volunteering before. When I got to the site and nobody knew what they were doing and I felt I was wasting my time. So, I met with Bev and told her I needed something to do worth of substance. Because I took such an initiative, she made me responsible for scheduling all the volunteers and making sure everything was covered. At first, I was freaked out. I mean, I was responsible for so much but Bev told me I could ask her any questions or if I needed help to ask. I learned so much from Bev. She is my role model. She was like an octopus, had her arms in everything but able to keep things together. I just never thought about all the parts that are incorporated in volunteering. I figured I would just show up and fit in.

Instructor:

I found that I wanted my students to do service-learning but I never really thought out the whole process. Now, that I have used these tools I can now see what my students were missing from not integrating SL better into my course. I thought that just having them do a journal was sufficient. I just figured that were learning and not caring about the “actual” learning experience.

Questions #5-S & #11-I: *In this experience, did you learn from anyone other than yourself?*

Students:

T: This was the greatest surprise for me. I probably learned more from tutee than class. I had to learn to communicate with someone who’s first language is not English. I just took for granted that everything I said was interpreted.

M: I learned just as much from my kids than in class. I had to learn a whole new language with slang and “ghetto talk”. I felt I was hip until they started using words and phrases I had no idea what they meant.

J: I got to use my Spanish skills a lot with the parents I talked too. I found that my Spanish is different than theirs. Even though we are the same ethnicity, I couldn’t figure out some of the meanings. Then I thought they must be really lost, and think that no one can understand them.

L: I think I learned from everyone, especially the community members.

H: I learned the most from the teacher. I was there to try to “get my hands dirty” and she made sure I did. She taught me how to make lesson plans and small activities for the kids. She told me it had to educational related not just fun and

games. I had to find out what they were doing in class and then relate it to my activity. I got to know about learning styles and the different educational levels of the kids in class.

Instructor:

I learned the most from my students who participated in this study. I received valuable feedback when I spoke to them about their experiences. When I did the Pre-Mid-End of the semester Scoring Rubrics and Personal Improvement Plan, I found out an enormous amount of information. The students had to verbally communicate their expectations and I had to tell them mine. It was startling to find out what they considered strengths and weaknesses. I thought they were hard on themselves. It was the reciprocal learning and feedback that I was most impressed with. I felt I was cheating my other students in class because we were not having the same experience. As an instructor, we never get feedback from our students regarding the class. This made me do it.

Questions #6-S & #12-I: *Where you or the student prepared for this assessment experience?*

Students:

M: I thought I was prepared for this experience but I kinda just jumped into the process and had no idea how or what I was doing. I asked other classmates about what they thought was expected and they had no idea. I then asked Ms. Moore. She said all we had to do was journal our experience. But then when I spoke with

Paula, I saw the rubrics and understood what I needed to do. It showed me what my goals were.

T: I was not prepared for this experience. I have never used any type rubrics.

J: No, not prepared.

L: I was not prepared for the assessment stuff, but I feel I was sorta prepared for the service-learning thing. I have volunteered at a child care center throughout high school and thought it was the same thing.

H: No way was I prepared. I felt like I needed a course in rubrics. I never even heard of rubrics before.

Instructor:

I thought the researcher was going to do the whole thing. I had no idea I was going to actually have to participate. To tell the truth, I was not prepared and was not paying attention during the training session. I wish I had though. I would not have had to ask you so many questions. I do think the training should be a day long workshop though. The researcher did give me step-by-step instructions but I didn't use them. These tools are hands-on evaluation techniques and require a lot of time and preparation.

Questions #7-S & #13-I: *How did you feel about the performance-based rubrics?*

Students:

T: I feel they really helped me. I had a direction. I used the scoring and instructor rubric mostly. The Student-Friendly one did not match my definitions or what I did at the site. I did like the checklist boxes. I used it more as a visual guide.

I set my class goal to this. I showed other students not in this study it and they wished they had it. I told them it was good but at first, I thought it was going to be a lot of work.

M: They helped with my end project. I could look at the elements and figure out what I needed to do because I don't think Ms. Moore gave us any.

J: I really only used the Scoring Rubric and the improvement plan thing. I was confused at the beginning when you trained us. There were so many instruments to use and I couldn't understand if I needed to use all three.

L: I felt they worked but I only used the Scoring Rubric for Civic Participation. Ms. Moore kept emphasizing how important citizenship was so I thought I should only look at that one. I used the Personal one because of the leadership skills. I did think there were too many.

H: They were good but too many. I wish I had one for each of my classes. I started to approach my other professors for more information about their tests, papers, etc. When I did, they would look dumbfounded. I found this funny and told Ms. Moore about it.

Instructor:

I loved them! It made me reflect on what my course goals and outcomes for service-learning are. I never really integrated any sort of service-learning assessment into the curriculum guidelines. I probably would have changed some of the elements though to correlate with district and division requirements. I think I will use them for all my classes in the future; many of the elements don't

necessarily have to do with service-learning. I could use them as a template for the future. They made me more accountable for my actions and attitudes for service-learning. It was easier to measure service-learning development in my students. I could actually see the learning growth happening. The students who participated really liked them. I felt I cheated the rest of my students because they did not use these. The comparison between the study projects and the rest of the students' summary papers was startling.

Questions #8-S & #14-I: *Have you ever used rubrics before?*

Students:

T: No, never.

M: No

J: I have used them in one of my other classes. These were a lot easier to read. The other ones I used just described what I needed to have in my paper, like proper spelling, punctuation and things.

L: No

H: No

Instructor:

I have actually used rubrics before but never in this context. My rubrics had syntax guidelines only. I do plan on reading more materials about performance-based rubrics. I hope to develop my own rubrics for my classes.

Questions #9-S & #15-I: *Did your instructor explain how your service-learning component was going to be evaluated?*

Students:

All: No, just what was in the syllabus.

M: We knew we had to write a paper but she never gave us any guidelines.

T: I understood after you explained the study. I do believe we needed more training time on the rubrics, maybe 2-3 hours or classes. Ms. Moore didn't tell us anything but I just don't think she had time.

Instructor:

I only gave the students my syllabus and how many points it was worth. I gave them the numbers of hours that was required. I did tell them I wanted them to keep a journal and they would have to participate in classroom reflection sessions. I also explained that there was going to be a analytical summary paper due at the end of the semester.

Questions #10-S & #16-I: *Did the instructor give you any goal or outcomes for the service-learning component?*

Students:

All students: Nothing except it was considered civic participation.

Instructor:

I am embarrassed to tell you this but I gave them no objectives for service-learning. I am usually in such a rush to get my syllabus done that I don't even think about consequences of these actions. Internally, I want my students to become better citizens but I never really thought out the whole process and how this would happen. I knew I wanted their experience to be service-learning but

never proceeded past the activity part. When I first started requiring my students to do service-learning, I just jumped in and every semester after, I have built and refined the process. I have even talked to other instructors who do service-learning and get ideas from them. Never once have I heard anything about assessing the student learning development and I hardly glanced into the journals for learning growth potential. I usually only look for the Intro, grammar—stuff like that. I probably should have thought out better class goals and how service-learning was going to be integrated into my course content. I wanted the class to be interactive but didn't think about what happens after the fact. I think I liked the activity but never imagined the assessment part or what my learning goal was for this component. As an instructor, I have the obligation to produce some kind of learning outcome for my students. I didn't do that here and I feel lousy about it. I had a personal goal for this study because of the funding I received from AACC for the chapter I needed to write. Maybe I was too worried about the article and not about the learning.

Questions #11-S & #17-I: *Did you feel that you had more to do than the rest of the class in terms of assessment?*

Students:

T: Yes, definitely. At first, I was not going to participate in the study after I saw what you were requiring but then I thought, what is this all about and can I help her further service-learning education. I also wanted to benefit from using the tools. I just didn't want to get an easy education.

M: God yes. The study required a more in-depth look into what I was doing and what skills I acquired. After the semester took off, I didn't think I was going to be able to participate further because of other commitments. But in the end, I stuck it out. The pre/post video was actually easy but I did need to spend at least 5 hours designing the video. In the beginning I must have changed the focus of the tape, a million times because I had no idea what I was doing. But once I really looked at the rubrics, I could see my video materializing.

L: Yes, I think I did more than the other students but I have always done more than the teacher asks because I want to get an A.

H: I know I did more. You could tell when we did our end of the year presentations. It made me mad that I probably got the same grade as those other students who didn't do half the stuff I did.

J: Yeh, but no biggy. What ever I need to do to get an A is fine with me.

Instructor:

My students who participated in the study did comment that they felt they had to do more than the rest of the class. BUT, I think when all was done, they could see the difference in their learning. What's that saying, the more you put into it, the more you get out of it? I could visually see the diversity between each set of students during our reflection sessions. I believe the students who did not participate in the study were jealous, especially when we presented final projects. It was funny, I was sitting in the back watching the "study" presentations and

videos and one student said to the other, “weren’t they at the same place as us?”

We didn’t do any of this stuff.”

Questions #12-S & #18-I: *Did you like the choices in choosing an assessment option?*

Students:

M: This was probably the best part of this study. I actually loved having the choice on what I wanted to do for my final project. I consider myself an amateur photographer so making the video was easy. I hate to write so I was pretty stressed out about this class. I guess that is why I volunteered for this study. I thought I could get out of writing. Oh sure, we had to write things but I guess I feel a lot better when I get to pick the stuff myself.

T: I’m a good speaker so I picked the oral presentation option. It is easy for me to get in front of a group of people and talk. You cannot stop me sometimes but I liked it. As soon as I saw I had a choice in what I could hand-in, I felt that from the start, I could succeed and I wasn’t all stressed out about the final project. It was a Win-Win situation.

H: At first, I was kinda mad that I had to choose how I was going to be assessed but after you talked to us I felt I could do it. I guess it is because I am one of those people who have to be told how to do everything. I

L: I liked the option but I wish you would have given us some examples. I wanted to know what an exceptional one looked like.

J: I guess it was okay but I was confused about the options. I thought I had to do all of them for just one rubric. Then you told us we only needed to do one. I did

have some questions though, like, you know, some weren't the same for all of them.

Instructor:

I enjoyed this aspect of it. I never gave any thought as to what different types of assessment options were out there. Being an English instructor, I always thought I needed to do the same as all the other instructors, for consistency sake. We do have certain guidelines dictated by the governing board and district. For example, the students need to write 4 papers throughout the semester. Each one has different criteria, like a pros/cons one. I found out about them during this study. The use of Blackboard as a reflection tool and dialogue journal was excellent. I liked using your Types of Service-Learning Assessment Options sheet. I never imagined the category and strategy were intersected.

Student Journals

The researcher also found other important and pertinent information from student journal reflections. The researcher did not require the students to do reflection journals for the study but the instructor required them for the class. The instructor gave the researcher copies of the participants' journals because she noticed several references to the performance-based rubrics.

Journal entries were a response to a series of questions that the instructor developed based on the Civic Participation Rubric. At least one question addressed each

element area. Below are some of the journal reflection questions and the corresponding element area.²

Has your experience made you become a more “informed citizen”? (Model Citizenship)

M: I had to really think about this one. I made the connection between my community needs and the societies’ needs. At first, you (Ms. Moore) would always talk about being a better citizen but you never said how I was supposed to do it. But when I got the civic part rubric, I had a guide for my learning. I referred to it throughout the semester and even gave it to other students who weren’t participating in the study. I used many of the words in my essays and I think because I had it, I became a more “informed citizen.” I think I did this by developing awareness for less fortunate and being responsive their needs. I would usually ignore these people if I saw them on the street or in stores. Now, I smile and have sympathy for them. I think everyone should be involved in their community because then they could develop respect for these diverse groups. I would seek out places for them to go to get help outside of CARE. I think many of them depend so much on Bev they don’t seek help anywhere else. I went to DES to try to get info for them and the staff there were so RUDE.

T: I used the study rubrics for this journal question. I do believe I’ve become a more informed citizen but I never noticed until I started arguing with my family for the rights of these people. I was one of those people who was sure “poor”

² The statements are written as they appeared in the journal. Misspelled words and grammatically incorrect phrases have been kept intact so that students’ intended wording or phrasing is not misrepresented. All

people were just lazy and could work like the rest of us. But when I worked with them and saw their plight it amazed me their resilience to just the simple things. They did not take anything for granted. They appreciate the little education they get. My family thinks I'm crazy for going down there and helping these people. They are all republicans and don't care about anything but money. They don't think anything I do will help, but I do. I can see it in the kid's faces and the parents when they smile at me and say thanks. My parents hate it when I talk about the place. They say it is depressing and I agree. So why don't more people help? We cannot solve societal ills just burying our head in the ground. We need to get out there and fight for them or at least get them help. Some of these people came to this country to get away from horrible governments and then we turn around and make them go through enough red tape to circle the globe twice. It makes me sick. Sorry I rambled.

L: Am I a better citizen? I hope so! I contemplated this question for sometime then I remembered the rubrics. I never considered it but they really guided my experience. I really got this when we went over the evaluation rubric. Especially the systems analysis one. I sense the cultural differences between the rich and poor communities in Gilbert. When I worked at the school, I saw how some kids were treated by the teachers. You would think they treat everyone the same but they don't. I heard terrible comments in the teachers lounge about how the "wetbacks" still don't get it. I was shocked. They were dehumanizing those kids

and what it meant by freedom of education for all. The SAME education. No wonder these kids had to hope. On the way home, I cried, thinking I couldn't say or do anything because it would effect my service component. So I had to put it down somewhere and I did, in my diary. I hate that they made feel this way. I think because of it, I am more determined to give and respect others cultures. I have to change attitudes of people who think like this. I want to make a difference in the future education of our children. Hopefully, when I am teaching and I and hear this, I will challenge them to not forget our goal to educate the less fortunate as well as the affluent.

How does your agency influence the community? Who uses these services and how are they affected by the agency? (Systems Analysis)

H: Lindsay and I were talking about this. She has seen how agencies influence communities. For example, at CARE, they helped people but I don't know if they provided long-lasting help. I mean, it seemed to me that when I worked there when we finished a job it was final. I've worked for St. Vincent de Paul and there I could see them go out of their way to help people. They had established programs to better educate their clients. These programs are on building blocks so you need to finish one and go on to another. The people who completed these classes were dedicated and disciplined. I felt at CARE they just came for free hand-outs which had no long lasting involvement. I would see people drop off their kids as though it was a free day care center. No parents ever asked if their child was good or bad, it was sad. Maybe I'm biased. Most Hispanics used these

serves and of course, it was located in their community. I never saw any kind of these places in my neighborhood, of course, my neighbors would die if St.

Vincent de Paul or whoever opened up a site there. Sometimes I would sit there and watch people. I'm a people watcher. I used to wonder how these people would feel if they went to Scottsdale to get help. Would the services there be different? How about the atmospheres there? Was the buildings in better places? I wondered if your poor do you have to stay in your immediate area to get help? I guess I need to investigate this more. Lindsay said that there is definitely a difference in elementary schools. The quality of teachers and school equipment is very distinctive.

L: I saw this first hand at the school. I talked about this before when answering the other journal question. I went to a pretty good "high tech" school, and the school I worked at had only one computer per class. I used to think about my school and how we had a whole multi media set-up and this school had nothing. I made me so mad. I thought we were supposed to have an EQUAL education. But I guess not. The building was also gross. Half of the classrooms had leaks and terrible furniture. It's appalling to see such waste at the RICH schools. I was telling my friends and we thought we could some how get together a group of students and do a drive for computer money or at least get old computers donated.

Do you plan to continue your community/political involvement? How? (Community Involvement)

M: I definitely will continue my involvement. I want to go to a school site. I plan on becoming a teacher so I think working at a Title 1 school would be great! I will miss the kids I work with though. I don't know if I will become involved in politics because I don't really have time. I also don't want to rock-the-boat at the school. I don't want to make a name for myself before I ever get hired. Maybe when I do get a job I could help people become better-informed citizens.

T: I will continue to work for Bev at the site. She has really helped me so I feel that I have to stay there. I also love working with the people there. I feel they really need me and it's close to where I live. I plan to work with more agencies connected with CARE for Bev. She doesn't have time to go out and get funding. I told her I would give presentations about my experiences at CARE. Like testimonials. She said she can talk to people until she is blue in the face but they don't get it. When she has students talk people listen. I don't know if I will get involved in politics. Maybe I will because I'll be talking to agencies outside CARE. Like the rubric says, "Develops communication skills and expresses ideas and values. Expands personal attitudes towards community and is respectful of it's diverse members. I believe I do all this stuff now but I know I will expand on it next semester. I hope to apply my POS 110 class to this subject.

L: I am pretty shy so I don't think I will be doing any kind of politics stuff. I do plan to work with my school again in the Spring. They have asked me to stay on. I would like to set-up some kind of tutoring program for the kids. Like get some of my old friends to volunteer and help. They have time to spend involved. This is

perfect for the rubric on community involvement. Which I just looked at. Hey what do you know? I can see the connection. I also want to visit the Thomas J. Pappas school in Tempe. I think it would be great for our kids to mix with them. I don't think the teacher will go for it though, she is kinda old-fashioned. I really really want to help children learn but I wish I knew what was out there for them. I also want to talk more Spanish classes. I think there is need for bilingual teachers. I took some Spanish in H.S. but I never used it. I know how I could help. I can ask my old Spanish teacher if her students can come to our school and help tutor. What a great way to learn a language by using it. It would be like taking conversational Spanish. I am so excited about this. I do believe in the rubric about peaceful resolution of problems. I guess I get this from my parents. They are old hippies and believe in peace not war.

H: I will not get involved in politics but I do plan to continue my community involvement, I don't necessarily know where but I do plan on doing something. I want to go to a different site but who knows. I am half Latina so I want to help immigrants learn English. I could see how the language barrier inhibits individuals. I never saw this before at my schools. I guess I was privileged. My family always spoke English and Spanish but I did know friends whose parents couldn't speak English. I know they had a hard time. As for politics, I don't trust politicians so I won't do anything for them. There are not that many Hispanics politicians and the ones there aren't working for Spanish people of Arizona. Most of them don't live where Hispanics live and have no idea what is going in these

neighborhoods. What I did like about Bev's place is she was trying to revitalize the downtown area, where a lot Mexicans live and work. She is trying to encourage others to recognize cultural factors from all Mesa citizens, not just the rich ones. I certainly have developed functional relationships with the community by providing mentoring skills to less educated individuals.

J: This semester has been really busy for me. I really don't know if I plan to do anything for politics. I am registered to take ENG 102 and POS 110 next semester. Ms. Moore did tell us we will be working to design a proposal for some sort of government action. You know I looked at the rubric when you gave this question because I remember we talked about it. When I looked at the rubric I found that I do most the stuff but I don't know to what extreme. I know we talked about this during the evaluation process but I'm not sure. I recognize the different political structures, like demos are more for people and reps are for money only. I don't think I've helped anyone solve any problems, even though I think this is good because of all the gang violence. In my neighborhood alone, I have seen gang graffiti which I thought I would never see. I hope my siblings are not doing anything. Maybe I could go talk to them at school about giving back to the community and help solve problems peacefully. As for the other stuff, I recognize the cultural differences between the haves and have nots. Like we talked about in class you know. You can see it just in how classmates are. For those of us who had these rubrics, we learned much more because we had goals and could refer back to rubrics. I could see this when we talked in class. It was kinda like we had

the rubrics and they didn't. I had to look at your question again. I feel I could talk about this forever. I do plan to stay involved in my community forever but I want to take a more active role in being a mentor or role-model for other young Latinas. I just don't have the time right now. I'm extremely busy with school, work and family stuff.

Content Analysis of Matrix

The researcher developed a matrix for organizing the information gathered from all sources. The matrix sorted the outcomes of each rubric and helped the researcher identify recurring themes among the data. The information was tallied as detailed in Chapter 3, Appendix M.

Data, quotes, observations, and other relevant information were stored in a "cell" corresponding to the type of assessment tool used. For example, data gathered from interviews of students using the scoring rubrics were put in cell 10. The matrix allowed for an enormous amount of data to be sorted and categorized as it was being collected throughout the study. In addition, the organization of the data in this manner allowed the researcher to observe central themes.

The matrix data analysis showed no discernible outcomes and no patterns relating to certain targets. All five students who participated had examples of positive educational outcomes in at least three of the six educational targets but these findings were formulated from the instructor and student interviews. There was no evidence that one type of target dominated the learning process but the researcher believes the instructor

did influence the usage of one certain rubric. All students used the Civic Participation, Personal Growth and Career Exploration rubrics.

Instead, the matrix analysis findings suggest that the Scoring Rubrics and Instructor Rubrics were most instrumental in the learning process. The particular learning that was accomplished could have been defined by the nature of the participating students rather than by the intended educational goals of the instructor or researcher.

For example, evidence of academic development was found in all five students but the researcher could not ascertain if it was from the Service-Learning Assessment Toolkit or from the constant writing assignments. This can be shown in one of the participant's journals. M commented, "I'm writing more in my classes now and can see how this influences my learning. My projects seem to have more meaning." The instructor suggested that the five participants had significantly different learning development compared to the other students in class and believed it was because they had prominent service-learning outcomes associated with the class. In comparing data within and across the matrix, it appears that use of the SLAT, regardless of tool, promoted students' development across the six educational targets. This will be discussed in more detail in the following section.

Emerging Themes

In analyzing the development from the various tools, a set of themes emerged. These themes suggest that all tools have some common core elements, which appear to have a significant influence on student development. These core elements may provide further understanding of service-learning development and its overall impact on students.

Integration of Service-Learning Instruction

In observing and interviewing the students and instructor for this research, it became apparent that there was no pattern of service-learning outcomes. In particular, the instructor did not fully integrate service-learning into the curriculum. The instructor confessed to the researcher that it was an “after-thought” the first time she used it in a course. She also admitted she hasn’t changed the course writing requirements for three years. Such a laissez-faire attitude does affect student development in service-learning. By not having explicit goals and objectives for service-learning, the instructor is not engaging students in thoughtful service-learning principles and strategies. Students need to make the connection between the service and the academic work. Improvement and sustainability of the experience and the partnerships are enhanced through formal assessment activities that involve community, faculty, and students.

Instructors committed to service-learning must be able to demonstrate the impact of their initiatives to ensure quality for student and community participants. For many instructors, understanding and articulating “impact” requires knowledge and expertise in the design and application of assessment methods. Although the primary purpose for assessment is to improve student learning, it also adequately responds to public demand for accountability.

The purpose of developing these assessment tools was to see if they were plausible for faculty and students to use as a mechanism to record what one has learned from one’s work. It was also designed to help articulate learning for oneself as well as for others. Instructors are responsible for the assessment process and its aim and purpose.

Many instructors in higher education have little time to stop, reflect, and consider the impact of their work. Most are over committed to other projects and/or scholarly activities. In order for these assessment tools to take hold, instructors need to ensure that service-learning is fully integrated into course curriculum. They also need to seek help with service-learning experts who can give clear expectations and specific guiding principles to promote student development success.

Empowering Self-Assessment Through Meaningful Reflection

One theme that emerged was that students who were most profoundly influenced by their service-learning experience were engaged in meaningful reflection activities that provided rich and powerful feedback. As many service-learning professionals know, reflection is the key difference between internship and service-learning. One key aspect of reflection is to challenge the student to engage in thought provoking analysis. When writing intellectual thoughts about their experiences, students begin to transfer and apply learning from the classroom to real-life situations, to analyze challenges, problem-solve, understand personal reactions, and discover ways to deal skillfully with diverse challenges.

The SLAT was designed to generate valuable feedback and facilitate reciprocal learning between the instructor and students. Instructors had improved contact with the students and thus the students became more involved. Many students believed they had “ownership” in their learning when they were being personally evaluated by the instructor. The students in this study especially like the opportunity to pick and design their own assessment option.

The SLAT empowers students to document their activities and be accountable for their service-learning experience. Students seek to understand the effectiveness of service-learning as a component of their learning experience. As part of their learning strategies, participants showed an increase in their awareness of community and sensitivity to diversity. They did this by referring back to the Instructor Rubric for guidance. The participants consistently developed a heightened awareness and understanding of community issues, needs, strengths, problems and resources. They expressed attitudes about working with communities with which they were not familiar, an increased comfort and confidence working with these communities, and recognition that they gained knowledge of a new community. The following student³ journal and interview comment, suggests that student empowerment played an important role in the degree to which the SLAT affected students' educational development:

T: I enjoyed doing my service-learning project because I could finally be graded on a project that I enjoyed. Ms. Moore told me that we could use the rubric examples as our semester final project. She also said that I had the choice of where to do my work. I wanted to work with kids because I plan on becoming an instructor. I never heard of CARE before and have never been down there. At first, I was scared about leaving my car and working to place. The people outside made me feel uncomfortable but I couldn't tell you how, maybe because there were not many white people. I never worked in a place where there were few

³ The statements are written as they were said at the post interviews. Misspelled words and grammatically incorrect phrases have been kept intact so that students' and instructor's intended wording or phrasing is not misrepresented. All personal communications were taken on November 30, 2001.

white people. I didn't see to many white people but I never considered myself prejudice before. Am I prejudice because I thought this? Was I just questioning my social identity? When I left though, I was more comfortable. I actually found out those people were volunteers too. As I drove home, I realized I actually live pretty close to the site. As my final project, I picked an oral presentation with a portfolio, since I had to keep a journal anyway. The portfolio can help me get a job.

Similarly, the instructor described how the assessment options empowered some students:

Instructor: It's amazing what the kids can do when you let them work on things they want to work on and care about. (T) admitted to me at the improvement plan meeting, that she liked working at CARE because of their mission to help and that she could really do something beneficial at the site... The leadership skills CARE has given them is amazing. (T) would never have received those in my class... She is learning to take control of her life, to make difficult decisions about important matters, and to understand the responsibilities that come along with helping individuals in need.

In most cases, the participants used reflection as a self-assessment tool. By using this method, they enhanced and validated their learning. The rubrics' criteria and expectations were clear and consistent for all the participants. In short, reflection provided validation for the students. The comments from the students and the instructor

suggest that when challenged to take on their own learning process, they are eager to meet that challenge and ultimately succeed.

Faculty Involvement

Another theme identified in this study and in the literature, is the “belief” that service-learning encompasses student growth. In particular, service-learning can not be effective without dedicated faculty involvement. Throughout the service-learning literature, there is repeated acknowledgement of the critical role and influence of faculty on student learning development. As Bringle and Hatcher (1998) note, service-learning in its most common form is a course-driven feature of the curriculum. The prominent features of quality service-learning depend for the most part on the faculty, including meaningful placements, as well as specific connections between subject matter and community issues, experiences, critical reflection, and preparation for diversity and conflict (Eyler & Giles, 1999).

Faculty motivation and attraction toward service-learning has several key elements. At the top of the list is the satisfaction faculty experience when observing students transformed by their community work. Also important is the student’s satisfaction with the experience—the joy of learning new insights and the commitment to community work following a service-learning course.

More than a few aspects of the data suggest that the “involvement” of the instructor was important to the student. As the following journal entry points out, students were more engaged and interested in the process when they felt that their instructor was also involved. Students also felt that if the instructor had the “belief” that

this experience was going to expand or promote their learning, they were more inclined to appreciate the experience instead of disregarding it. All five participants agreed that they would each benefit personally and professionally because Ms. Moore made an effort to meet the community partner and established real criteria for the component.

T: When Ms. Moore gave us this requirement I was mad at first. Like I have time to give 20 hours of community service to someone. But when Ms. Moore told us she talked to Bev and gave her some ideas for us to do, I felt better. I knew I didn't just want to go there and have to feed homeless people. I wanted to do more and Bev knew it. She assigned me to an important project, so I felt I was really contributing to my community. I also like the fact Ms. Moore worked with Bev and helped her designate some goals for the class.

The researcher concluded that because the instructor believed in the philosophy of service-learning, the students were more engaged in their activities. Only the five participants who received copies of the rubrics and had established criteria developed truly meaningful experiences. The researcher was concerned when the instructor admitted it was an "after thought" and had not fully integrated service-learning into the course. The researcher was worried that this would influence or impact the way students interpreted the importance of service-learning and reflection.

Spreading the Gospel

Another theme which evolved, and probably the most important, was the enthusiasm by the students to share their rubrics and assessment tools with other students in the class. Several times during classroom meetings and reflections sessions, the

participants instructed the other students in the value of the rubrics and the desired outcomes. The researcher examined the way they coached other students and explained each element area in their own words. Several of the participants stated that they would have liked to have the same type of standards in their other classes. One student in particular even commented during the post interview:

M: Boy, I wish I had these same things in my other classes. I even took them and showed them to my Biology instructor and explained how I thought he could improve the class for next year. You wouldn't believe it. He looked and acted like I had just grown two heads. I then explained to him the purpose behind the rubrics and how I felt I was more responsible for my learning and for me this was a crucial part of my education. I showed him all the stuff we did and he was amazed. He asked me "Your instructor must have a lot of time?" which I then said, "No, I did all this, I was committed to this product and put my best effort into it. We BOTH graded my work and I knew where I had to improve and in what areas. I wanted an *A* and I got it because I worked hard for it, I knew along the way where I was in the class and what I needed to do to get an *A*."

The instructor commented several times about the "evangelical" nature of performance-based assessment. For example, in one meeting with the researcher, she stated:

You know how you go to those department and college meetings? They are usually so boring, but this one time, I was actually listening. The topic by the Dean that day was assessment. This made me perk up. The Dean was saying how

we needed to develop better assessment tools, which measured “Real” learning because accreditation was coming up. All the instructors were groaning and I thought about your stuff. I started to explain your SLATs to the other faculty and many of the questions I couldn’t answer because I felt I needed more training on them and performance-based assessment in particular. This made think that I needed to get serious about your stuff and know what I was really doing. Several of the faculty wanted copies of your stuff but I thought I should ask you first.

(Ms. Moore, personal communication, November 30, 2001)

These comments suggest that students increased their time on task, which improved and enhanced their learning. Also their commitment to learn was empowered by their own hands not necessarily dictated by only the teacher. The students felt engaged and responsible for their own learning.

Fostering of Learning Communities

One final emerging theme was the connectedness between service-learning and learning communities. One practice or goal of learning communities is the sense of “community.” This was seen throughout the student journal reflections and observations in the focus on “learning to learn *in community*.” The five students who participated in this study all belonged to an *informal* learning community. The learning community consisted of ENG 101 and EDU 221 (First-Year Composition and Intro to Education). There were a total of 15 students in the learning community, but only five participated in this study. The students stated to me during their post-interview that their learning community had an impact on their student development. They all expressed that they

used each other as a support system. In particular, they had someone available to ask questions about the rubrics. They stated there was a “connected knowing” or integration of ideas across their classes.

The researcher observed camaraderie and collaboration between the five students. On more than one occasion the researcher witnessed the linking of theory and practice when the students who tutored at a schools reflected on the applications used at their designated sites. On one particular observation, the researcher was privy to a debate between the students. One student was discussing her adamant disgust at how her site teacher was treating a new Hispanic student. Another student tried to give constructive feedback and used some strategies from the Civic Participation Rubric.

H: stated, “You can engage the teacher in a dialogue about diversity issues and communication skills.” The other student listened respectfully and said “I never thought about it that way or I guess I could do that.” For these two students the fact that they were taking two classes together and doing service-learning in both, made the experience more profound and engaging.

The data showed that fostering collaboration on a common issue created an atmosphere of collegial bonds, working relationships and friendships. The instructor provided several indications that the study experience helped students feel like they belong to a group and established new personal relationships. The students stated⁴:

H: I’ve made great friends.

⁴ The statements are written as they were said at the post interviews. Misspelled words and grammatically incorrect phrases have been kept intact so that students’ and instructor’s intended wording or phrasing is not misrepresented. All personal communications were taken on November 30, 2001

L: It was hard working together at first, but now we all get along and it's great fun.

T: Bev is like a mother to me. She is someone I can talk to about anything.

M: We support each other. When I have a question, I ask them first, then the teacher.

The instructor stated:

Working on the rubrics and improvement plan has brought us a lot closer. There have been lots of frustrations, especially when we first started discussing the rubrics but then we started talking about their experiences and it opened them up. It was a real bonding experience.

While the degree to which the fostering of learning communities played a role in affecting students' educational development is unclear, it is probable that the formation of such units created a more pleasant and comfortable experience for the students, leading to their overall satisfaction with the study experience

Research Questions

The findings are presented here in accordance with the three questions central to this study.

1. How do performance-based evaluation techniques influence service-learning development and growth?

There were frequent references to the influences of the performance-based evaluation techniques from each of the participants and the instructor. Data from the instructor included overt links between service-learning outcomes, performance-based

rubrics and course curriculum. In contrast, the student data included only casual references to the influences of the performance-based evaluation techniques on students' educational development.

These references were mentioned in various data items including the student and instructor interviews, journals and the researcher's emerging themes. One major influence on student development and growth was that the tools were used as a *reflection and feedback* mechanism. Throughout the post-interviews, students repeatedly commented that they "received valuable feedback and found an enormous amount of information about their learning", when they reflected using the self-assessment evaluation tool.

Another area that influenced development was the *reciprocal learning* that took place between the instructor and the student. The instructor stated several times during the interviews that she received invaluable feedback from the students about their learning and experiences. She was impressed with the way the students were honest about their experiences and expectations about the class.

A different area of development was the lack of *explicit expectations, goals or objectives* for the service-learning component. The students stated that the instructor gave no specific service objectives in her syllabus. Many of the students had the feeling of just "jumping" into the process with no *direction or guidelines*. Several students used the SLAT as a *visual guide* to their learning.

In addition the students stated that they had a more *in-depth* look into their learning. The participants recognized that their service-learning experience was *different*

from the other students in class. They acknowledged that using the tools *affected* their learning and as a result, they felt they had an advantage over the other students in class. The instructor even stated, “I felt I cheated the rest of my students because they did not use these. The comparison between the study projects and the rest of the students’ summaries were startling.”

Furthermore, the instructor commented that the study participants had made connections through their reflections between their service experiences and their academic and personal lives. The instructor and researcher observed *high-order thinking* skills such as analysis, application, and synthesis. The instructor also noticed that the performance-based evaluation tools caused the students to *critically reflect* on their experiences and written course work.

A final influence observed in the data was that students were more *engaged* in their learning. A few of the students began *teaching* the other students in class about the rubrics. One student stated, “I showed other students not in this study it and they wished they had it. I told them I used it as a visual guide and set my goals to it.” The literature suggests that learning is reinforced when the student has to teach it to someone else. Helping a peer also engages the student in more *time on task* and produces a *collaborative* learning atmosphere.

2. How can each of the following evaluation tools be effectively used or adapted to assess benefits of service-learning: Instructor Rubric, Student-Friendly Rubric, Scoring Rubric and Service-Learning Improvement Plan?

As stated frequently throughout the post-interviews and themes, each of the evaluation tools can be effectively used by *providing valuable feedback*. In traditional assessment of service-learning components, instructors generally provided no feedback to students regarding their experiences. We find this time and time again in the literature, that students seek reassurance and verbal feedback from the community partners and instructors. The participants acknowledged they were provided with a meaningful opportunity for self-assessment using the Scoring Rubric. They stated that their one-on-one feedback evaluations with the instructor made them responsible for their learning.

Another way the tools can be effectively adapted is by *verbally communicating the expectations* or goals/objectives for the service-learning components. The goals or outcomes are the strongest link between what the student learns and experiences in service-learning. So few practitioners provide critical outcomes for their students that many walk away wondering what they were supposed to have learned. By being upfront with clear goals or outcomes, the student can make the connection and piece together the intended action. These tools provide purposeful action instead of means to an end.

In addition to the goals and expectations, the tools must be adapted and *fully integrated* into the service-learning course curriculum. As shown in the excerpts from the instructor interview, training and proper instructions must be provided so the tool can be effectively implemented. The students also commented that the rubric training must be effective in order to fully understand and apply all the tools. By fully integrating into the SLAT into the service-learning curriculum, the teacher is providing clarity, consistency

and alignment to their assessment instruments. This produces a positive learning environment.

One more benefit of these tools is the *choice of assessment option* for the student. By providing the student their own assessment option, these tools empower the student and grant them ownership of their learning. Participants stated in their post-interviews that they were more motivated and felt they had the ability to achieve from the beginning. They also became more responsible, accountable and had the desire to learn. This intrinsic motivation produced willingness to reflect on the service-learning experience.

Finally, these tools provide a *template for instructors* or practitioners to use when designing their own performance-based rubrics. One of the drawbacks to this study was that a few of the participants commented that the rubrics were too specific or detailed-oriented for their particular community site. The challenge to many instructors will be to adapt these tools to their individual course curriculum and service experience. One of the greatest concerns to educators is the connection between service-learning and the learning of material in the course being taught.

3. What evaluation scheme provides the most compelling profile of student achievement as a result of service-learning programs?

The most basic step in analyzing the data was to look for patterns in the students' overall development and achievement in their service-learning experiences. The challenge was to recognize learning that was unique or truly different from non-study participants.

The influences mentioned in question one, taken in the aggregate, provide compelling evidence of the advantage of these tools as an evaluation scheme compared to other evaluation schemes. This scheme fits well with the optimum learning environment for service-learning.

Perhaps the strongest evidence was that the students could adopt a self-assessment option to their learning. The SLAT technique requires students to self-assess and therefore prompts them to realize their own learning preferences, strengths and styles.

Overall, the participants of this study had a better idea of how they were doing in class because they utilized the SLAT. The instructor commented that she had a more accurate picture of their overall academic performance beyond the usual English writing assignments. The instructor stated during the post-interview that the students who participated in the study had grown significantly beyond the other students in the class. The performance-based tools held the instructor and the student accountable for their own learning. The SLAT provided specific ways for students to demonstrate what they learned from the outcomes designed.

Service-learning is a multifaceted teaching and learning tool. Added to this is the fact that a great deal of what happens in service-learning programs is often unanticipated; consequently, it is often difficult to determine what to assess at the outset. Moreover, individual classroom service-learning instruction is inherently complex. The independent nature of instructors teaching styles combined with strict district guidelines necessitate comprehensive training in the use of the SLAT.

CHAPTER 5

CONCLUSIONS

To “learn from experience” is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things of significance. Under such conditions, learning becomes instruction -- discovery of the connection of things. Education and experience are thus a fostering, a nurturing, and cultivating process.

John Dewey (1938)

Summary of the Findings

The purpose of this study was to examine previously un-addressed assessment issues in service-learning educational development and growth. This study examined whether the utilization of performance-based assessment techniques were beneficial in facilitating educational development of students participating in service-learning programs. To capture the educational development of students, the study employed the Service-Learning Assessment Toolkit (SLAT), a variety of performance-based assessment instruments or tools designed by the researcher. These tools were intended to measure students' development in the six educational targets identified by Andrew Furco in 1997. These six targets were academic growth, career exploration, civic participation, ethical growth, personal growth and social growth. A series of qualitative cases analyses were conducted to gauge the effectiveness of the SLAT on student educational development.

The qualitative analysis of the student post-interviews, journals, and other data resources revealed additional learning influences to service-learning. In particular, findings from the analysis revealed that the SLAT facilitated learning and that the

reflections contained elaborate and profound discussions about student development related to service-learning. Overall, the analysis found no identifiable outcomes relating to a particular target.

Conclusions are drawn in reference to the three research questions essential to this study.

1. How do the performance-based evaluation techniques influence service-learning development and growth?

What was known before?

As mentioned in Chapter 2 (literature review), experts agree that assessment is an integral component to service-learning development and growth. Recall Gelmon's (2000) comments that "assessment is concerned with learning and is a process that depends upon formulating questions and developing evidence to answer those questions." (p. 85). The primary emphasis in assessment is twofold: on learning about learning, and using that learning for short-term as well as long-term curriculum development.

Angelo (1995) outlined nine properties for increasing learning in the classroom. He said that students learn more when they:

1. actively engaged in their academic work by asking students to periodically write a brief summary of their lecture;
2. set and maintain realistic expectations in producing a learning goals;
3. keep a log of their own ways of working so that they can monitor, direct, and redirect their energies;
4. provide and use regular, timely, feedback via one minute paper;

5. connect new information to prior knowledge through a simple questionnaire;
6. organize their learning in meaningful and academically by means of concept maps or charts;
7. experiment with real-world applications of classroom learning;
8. work regularly and productively with instructors and other students by assessing each team and
9. invest time in keeping track of both the quantity and quality of their work with logs. (p. 31).

Wiggins (1990) supported the benefit of performance-based assessments because they present the student with a full array of tasks that mirror the priorities and challenges found in the best instructional activities. He also realized that creating effective assessment tools requires thinking through curriculum content, establishing learning outcomes, then designing performance activities that will allow students to demonstrate their achievement of those outcomes, and specifying criteria by which they will be evaluated.

One would assume that assessment efforts are an integral part of understanding the impact of service-learning. Yet in contrast to the scope of service-learning programs and activities, relatively little assessment evidence has been developed. As Eyler (2001) stated, “we need to begin looking at other assessment tools/methods for measuring our learning goals and objectives” (p.15). Survey research over the past decade has provided

ample evidence of the impact of service-learning on the personal and social development of college students but the evidence for its cognitive impact is less well developed.

In order to improve the quality of academic service-learning, we need to move beyond surveys and identify the intellectual outcomes best facilitated through service-learning, create measures of those learning outcomes that can be embedded into the instructional process, and conduct experimental studies of alternative pedagogical techniques to identify those which produce optimal learning and cognitive development. (Eyler, 2001, p.18)

Gelmon (2000) also suggested that a significant gap exists in research addressing assessment studies—not only learning about outcomes of service-learning, but learning about different aspects of service-learning that can be assessed.

The literature suggested that there was clearly a gap between the intended development and current evaluation/assessment techniques. It was necessary therefore, to develop new methods for conducting such assessments.

What did the researcher learn?

The researcher found that using performance-based assessment techniques influenced and *facilitated the learning* better than traditional service-learning assessment, which in most cases is simply a self-reporting survey. There were frequent references to the influences of the performance-based evaluation techniques (SLAT) from each of the participants and the instructor. A recap of the influences from chapter four are as follows: *reflection and feedback mechanism, reciprocal learning, explicit expectations; goals or objectives, high-order thinking, critically reflection, more time on task, and*

collaborative learning atmospheres. Some of the more intriguing influences are discussed in more detail in the following areas.

The researcher also discovered that by using performance-based techniques, students felt they had a *guide* for their learning. Many of the students had the feeling of just “jumping” into the process with no *direction or guidelines*. As noted several times in the students’ post-interviews and journals, they used the SLAT as a *visual guide* to their learning. They expressed their constant referral back to them, what Angelo (1995) refers to “as a map or chart of reassurance.” (p. 31).

Another area the researcher found intriguing was that students became *more responsible for their learning*. Many of the students stated that they had a more *in-depth* look into their learning. The participants recognized that their service-learning experience was *different* from the other students in class. They acknowledged that using the tools *affected* their learning, which made them more *engaged* in their learning. A few of the students began *teaching* the other students in class about the rubrics because they felt they had an advantage in their performance-based directed learning experience.

What conclusions could be made based on the findings and any other related information?

The researcher concluded that performance-based assessment techniques, in particular, the instruments designed by the researcher (SLAT), significantly influenced student development and growth in service-learning. Although this study did not reveal firm causal relationships between the performance-based assessment rubrics and the six

educational targets, this study did capture some effective strategies for assessing service-learning educational outcomes.

The researcher agrees with Bringle and Hatcher (2000) that service-learning practitioners must devote more resources to conducting systematic, scientific assessment of service-learning outcomes across students, faculty, institutions, and community partners. This type of scientific assessment with meaningful indicators of educational outcomes represents a public, peer-reviewed, and replicable type of information gathering that is important for increasing confidence among practitioners. This reliable data would provide justification to support the expansion and recognition of service-learning academically, and would develop theory to enhance our understanding of best practices.

2. How can each of the following evaluation tools be effectively used or adapted to assess the benefits of service-learning: Instructor Rubric, Student-Friendly Rubric, Scoring Rubric and Service-Learning Improvement Plan?

What was known before?

Of course, there was no information prior to this study regarding the effective implementation of the researcher's SLAT instruments, but there were a few references to general performance-based techniques in service-learning.

As stated in the literature review, service-learning practitioners are longing for more operational definitions of what students can do, what skills they possess, and what problems they can solve. Definite emphasis is placed on higher-order thinking skills. This philosophy of performance assessment was developed in partial response to dissatisfaction expressed from current self-reporting surveys and traditional tests. All

educators appear to want more hands-on assessments where actual student behavior and production can be examined.

According to Payne's book, *Evaluating Service-Learning Activities and Programs* (2000), the following are among the most important general characteristics of modern performance assessment:

1. Value beyond the assessment itself – the assessment task should be meaningful in and of itself and not derive value just from being a “test”.
2. Student-created response – having a record of an actual student behavior observed and evaluated or an evaluated product brings criterion and assessment closer together.
3. Realistic focus – this characteristic relates to the contemporary need to show students that they are involved in “meaningful” (real-world) learning that will have an ultimate tangible payoff.
4. Application of knowledge – the need to measure problem-solving and critical thinking skills.
5. Multiple data sources – a variety of approaches will enhance validity and reliability and allow greater adaptability to individual student differences.
6. Objective-based and criterion-references – having objectives to guide development and interpretation contributes to the relevance of the assessment and its validity.
7. Reliability – consistency is a prerequisite in any assessment from administration to performance and scoring.

8. Multiple approaches – the student, with advanced notice, should have some latitude in determining how the assessment will be documented.
9. Multidimensional in structure – addresses the comprehensive integration and combination of skills and knowledge. (p. 74)

In Payne's book, he describes these characteristics and shows the difference between performance assessment and traditional educational measurements but he does not actually show an educator what a rubric or other techniques look like. Performance assessment's advantage is that it can be both a teaching and testing method. Most service-learning practitioners are interested in the products of learning but are also concerned with *how* the student arrives at his or her product. Often the development of techniques or skills can be considered an end in itself or so intimately tied to the product as to be inseparable. The key to developing a performance assessment is motivation. Developmental situations in which an individual can exhibit real-life behaviors generally increases the relevance and accuracy of an assessment.

What did the researcher learn?

The researcher found more training was probably needed when implementing performance-based assessment. To effectively sustain the value of the SLAT, the researcher found it necessary to train and work with the faculty member throughout the first year of implementation. In order for the tools to be used most effectively, the instructor must fully understand how the SLAT works. This in turn helps the instructor become more involved in the learning, which in turn, makes him or her a more effective educator. For many instructors, understanding and articulating "impact" requires

knowledge and expertise in the design and application of assessment methods. Although the primary purpose for assessment is to improve student learning, it also adequately responds to the public demand for accountability. As shown in the excerpts from the instructor interview, training and proper instructions must be provided so the tools can be effectively implemented.

By not having explicit goals and objectives for service-learning, students cannot engage in thoughtful service-learning principles and strategies. Students need to make the connection between the service and the academic work. Improvement and sustainability of the experience and the partnerships are enhanced through formal assessment activities that involve community, faculty, and students. By fully integrating into the SLAT into the service-learning curriculum, the teacher is providing clarity, consistency and alignment to their assessment instruments. This produces a positive learning environment.

In addition, the researcher found that these assessment tools were plausible for faculty and students to use as a mechanism to record what one has learned from one's work. They helped to articulate learning for oneself as well as for others. Finally, the researcher found that the SLAT was more helpful in measuring student development and provided different types of assessment options generally not available to students.

Instructors are responsible for the assessment process and its aim and purpose. Unfortunately, many instructors in higher education have little time to stop, reflect, and consider the impact of their work. Most are over committed to other projects and/or scholarly activities. In order for these assessment tools to take hold, instructors need to

ensure that service-learning is fully integrated into course curriculum. They also need to seek help with service-learning experts who can give clear expectations and specific guiding principles to promote student development success.

What conclusions could be made based on the findings and any other related information?

The researcher concluded that when these tools are implemented correctly and fully adapted into the curriculum they will benefit the overall service-learning experience. The SLAT was developed in partial response to dissatisfaction expressed from current service-learning assessment methods.

Another advantage of the SLAT is that it can be both a teaching and testing method. Development of the criteria were intimately tied to traditional service-learning outcomes. The SLAT met all of Herman, Aschbacher and Winter's (1992) six criteria to be used for evaluating assessment: matching specific instructional intentions; representing content and skills expected to be attained by students; enabling students to demonstrate their proficiencies and capabilities; allowing assessment of multiple goals; reflecting an authentic, real-world context and allowing an interdisciplinary approach.

The researcher also found that because some of the tools were designed around specific service-learning activities, the tools were not generalizable enough. The tools were also influenced by the definitions established in the focus group interviews. Thus, the SLAT should be a *template* for instructors or practitioners to use when designing their own performance-based rubrics or tools.

In summary, the major advantage of using the SLAT was the involvement and investment of the student in a process that directly relates to instruction. The disadvantage was the time and effort needed to create rubrics and apply them systematically.

3. What evaluation scheme provides the most compelling profile of student achievement as a result of service-learning programs?

What was known before?

The researcher found three, characteristics of evaluation schemes that are fundamentally important to student achievement in service-learning: student responsibility, self-assessment, and meaningful feedback.

In Chapter 2, Dewey (1938) discussed student responsibility. He said that when students actively participate in their learning, they are able to construct knowledge that is personally meaningful and fulfilling. Bruner (1961) agreed with Dewey, but promoted the idea that a student be viewed neither as a passive recipient of information nor as a bundle of stimuli-response connections. Instead, a student should be viewed as “one who selects and transforms information, constructs hypotheses, and alters those hypotheses according to the evidence presented” (Anglin & Bruner 1973, p.59).

Mentkowski et al., (2000) stated that in order to take more responsibility for developing abilities, learners need an increased understanding of what they are doing in relation to what they aim to do. Being aware is an essential part of learning. If the learner understands what is clear and meaningful about a theory or framework, they can then determine future strategies for effective production.

Within the last decade, student self-assessment has received serious consideration as a valid means of assessment. A successful, active and reflective learning process includes learner engagement, self-assessment, and feedback. Reflective self-assessment helps learners to shape future performance based on understanding both their past and present work and their intellectual processes. Tierney, Carter and Desai (1991) assert that student self-assessment is at the heart of the assessment movement. They claim that there is no reason why students cannot assess themselves on *all* content and learning standards.

Mentkowski et al. (2000) also examined how course elements support self-assessment and awareness of self in a variety of ways: the use of clear abilities, performance criteria that integrate knowledge and ability, discussions with peers and faculty, and the regular use of feedback on performing and learning progress. Essentially, assessing multiple performances in diverse settings in groups and in reflection, leads to different kinds of mindfulness about learning. By making the interaction of performance and self-assessment an object of the student's learning, faculty give students more opportunities to be reflective and to thoughtfully consider their growth as learners and performers who are developing a professional identity. Out-of-class activities such as service-learning provide students with opportunities for self-assessment.

Another way for educators to improve learning is to provide feedback to students about their assessment efforts and results. A number of assessment experts have argued persuasively for the use of feedback, whether assessing learning in general education, the major, or other classroom components such as service-learning.

In traditional assessment of service-learning components, instructors have generally provided no feedback to students regarding their experiences. The literature suggested that students seek reassurance and verbal feedback from their community partners and instructors. In addition, one-on-one feedback evaluation with the instructor made students more responsible for their learning.

Wiggins (1998) has been one of the most effective voices in arguing for the use of feedback as a way to improve student learning. Wiggins believes that assessment should teach as well as measure and that it should provide “rich and useful feedback to all students and to their teacher” (p.43). Assessment activities are seen as a natural part of the learning process and issues of student motivation are maximized. In addition, Wiggins argues, “feedback is most effective if it occurs along with assessment activities providing commentary that is ‘rich, clear, and direct enough’ to help students self-assess and correct their performances” (p.45).

What did the researcher learn?

Perhaps the strongest evidence of achievement was that the students could *self-assess* their learning, *receive valuable feedback*, and be *accountable* for their learning. The SLAT techniques required students to reflect and therefore self-assess their own learning preferences, strengths and styles. In most cases, the participants used the Service-Learning Improvement Plan which provided the best proof of all three areas. By using this method, they enhanced and validated their learning. The comments from the students and the instructor suggest that when challenged to take on their own learning process, they were eager to meet that challenge and ultimately succeed.

The SLAT also generated valuable feedback and facilitated reciprocal learning between the instructor and students. Instructors had improved contact with the students and thus the students became more involved. Many students believed they had “ownership” in their learning when they were being personally evaluated by the instructor. The students in this study especially like the opportunity to pick and design their own assessment option. The SLAT empowers students to document their activities and be accountable for their service-learning experience.

Overall, the participants of this study had a better idea of how they were doing in class because they utilized the SLAT. The instructor commented that she had a more accurate picture of their overall academic performance beyond the usual English writing assignments. The instructor stated during the post-interview that the students who participated in the study had grown significantly beyond the other students in the class. The performance-based tools held the instructor and the student accountable for their own learning. The SLAT provided specific ways for students to demonstrate what they learned from the outcomes designed.

What conclusions could be made based on the findings and any other related information?

The researcher concludes that the SLAT, when implemented correctly and fully integrated into a course, provides a complete, clear profile of student achievement at several stages of their development. These tools provide the students with multiple opportunities to self-assess and receive feedback. Because students are held responsible and accountable for their learning, they learn better and demonstrate more growth than

students using traditional evaluation instruments. For these reasons, the researcher believes that the SLAT is the best current evaluation scheme to profile student achievement in service-learning programs.

Limitations of the Study

Although the study was designed to provide a more comprehensive approach to assessing educational development of students in service-learning, it had several limitations.

Design of the Study

Perhaps the most serious limitations are rooted in the design of the study. Specifically, the study did not employ a design that could fully explore the non-equivalence of the student groups. The sampling of the study was one of convenience. Thus the researcher had no control over the makeup of the student groups or the actual experiences students encountered inside and outside their classroom. Consequently, although some significant differences were found, these findings might have been due to the unexamined students who did not participate in the study. None of which was taken into account.

The study also did not take into account many characteristics of the participants such as grade point averages, educational backgrounds, and/or overall demographic factors, all of which may have affected the outcomes of the study.

Unfortunately, the limited access the researcher had to the students at the community partner site and during classroom time, did not allow for further exploration of potentially informative data about the students and the programs. Future studies of

service-learning assessment should consider more sophisticated design so that important differences between groups can be more fully accounted for in the analysis.

Selection Bias

The purpose of this study was to examine previously un-addressed assessment issues of students participating in higher education service-learning programs and to determine if the development of the SLAT fostered different outcomes. To do this, the researcher searched for higher education instructors using service-learning who matched specific study requirements: their students could pick their own community site placements, they would allow the researcher to interrupt class time to work with students, and they were willing to participate in a four-hour training session. The researcher could only locate three 2-year institutions in Maricopa County, Arizona with faculty that fit this description. In the end, only one of these schools participated in the study.

Given this scenario, it is very possible that researcher selection biases might have influenced the results of the study. For example, the two schools that were initially identified for participation were recommended for their outstanding service-learning programs by experts in the field. The school that did participate in the study considered engagement of students in the community as an important part of the school's overall mission. The instructor who participated in the study was described by their site administrators and service directors as "fantastic", "wonderful with the students", and "very cooperative." Therefore, it is possible that the significant differences found was due to the fact that the instructor was already using an effective service-learning classroom model. The results might have turned out differently if the service-learning

components had been less recognized or had been taught by a less able or less experienced instructor.

Another limitation of the study was the embodiment of the student sample. A study is most likely to have a representative sample when all members of the population have an equal chance of being selected in the sample (Babbie, 1975). However, in this study, members of the schools' whole service-learning program and community partners did not have an equal chance of being selected. Based on the researcher's criteria for student involvement, the researcher decided which instructors could have the opportunity to participate. Therefore, the study's sample is based primarily on self-selection at various levels of the design. This is important to note since this selection bias may have produced results that misrepresent service-learning programs' outcomes for the general student population.

Independence of SLAT

Another limitation of the study was the assumption about the independence of the SLAT tools and educational targets. The study results of each target were considered individually without much regard to the inter-relationship between and among the targets. Findings from the analysis suggest that there is significant crossover between the targets. The study found that, at times, outcomes for individual students spanned across many targets. Perhaps future researchers may want to investigate the interdependence of these targets by designing a study that employs other appropriate analysis techniques.

The researcher also found that because she required the instructor to use three of the six educational target rubrics for the study it may have influenced the overall findings

of the study. Both the instructor and the students commented several times during the study that they felt that the requirement of three rubrics was overwhelming. Perhaps in future studies, only one or two educational targets should be considered at a time.

Assessment Training

Despite recent changes in higher education reform, the assessment norm is still the use of traditional measurements such as tests. In a perfect higher education world, there would be no need to train educators on the benefits and advantages of performance-based assessment techniques. But the researcher found that she should have spent much more time training the instructor on the use of performance-based techniques and SLAT instruments.

Limitations of Instruments and Measurements

The greatest criticism of this study is likely to come from those who will question whether the SLAT or participants' post-interviews, journals, and observations, in and of themselves, can sufficiently ascertain students' development in each of the educational targets central to this study. In other words, can the measures and data sources used in SLAT truly determine whether or not students have had significant development in the six educational development targets?

The extent to which individual students' educational development can be accurately assessed remains in question. For the most part, the data upon which the results are based are from the post-interviews, student journals, instructor post-interview, community partners, and site administrators. This information was supplemented by data about the students provided by the instructor. While the researcher did conduct some

observations and reviewed samples of student work, these data, in and of themselves, were insufficient to be able to draw any firm conclusions. Academic development was especially difficult to capture. For the most part, inferences regarding the outcomes of students' had to be made primarily based on students' own accounts of their degree of learning, overall content mastery, and attitudes toward school.

Unfortunately, in order to maintain confidentiality and due to time constraints, the researcher was not granted permission to observe participants throughout the day or review individual student school records. This imposed serious limitations on the researcher's ability to capture some important hard evidence about student outcomes and other issues that were perceived by the researcher to be interesting or informative.

Implications of Study Findings

The significant impact on students found by the study makes a strong case for adopting the SLAT. But beyond simply highlighting the potential outcomes of service programs, the findings of this study have several implications for better understanding how service-learning affects students. In addition, the findings provide insight for developing more effective means of researching the outcomes on students' service-learning educational development.

Individual Student Contributions

Although an appropriate service-learning project potentially can be developed for every student, every student is not likely to benefit from the service-learning project in the same way. One of the emerging themes of the study implies that the individuality of the student should be taken into account when investigating the outcomes of service-

learning programs for students. The interplay of a student's prior service experience, motivation to do service, enthusiasm for particular service activities, and personal interests and talents appear to have a strong influence on outcomes the student achieves. The importance of accounting for this was noted by Conrad (1980) who in his study found that experiential education program outcomes are predominantly based on students' individual experiences.

Most service-learning research to date has been preoccupied with trying to show positive outcomes and has not dealt with the deeper issues of what causes those outcomes to exhibit. As service-learning research matures, deeper investigation of the educational impacts of service-learning will likely provide a better understanding of which personal aspects have the greatest predictive value for outcomes in the various targets. This information will be helpful to educators in designing the most appropriate and effective opportunities for students.

SLAT Definitions

While there are several distinctions among service-learning educational outcomes, there only appear to be slight differences among the six educational targets in this study. One reason that no strong distinctions in outcomes were found among service-learning activities, may be that the terms used to define the activities are not always used consistently. Terms such as volunteerism, community service, service-learning, internships, field education, field studies, community-based education, and community service-learning are sometimes used interchangeably (Stanton, 1987). In reviewing the literature on service-learning studies, the definitions for the terms used to label the

programs under investigation were not consistent across the studies. One researcher's definition of internship would be another's definition of service-learning. Even among students who participated in the study, the labels applied. Perhaps the inconsistencies in the way service-learning is discussed and labeled may have some influence on how students approach service-learning and their outcomes. As stated in Chapter 1 and 2, researchers studying service programs should clearly define service-learning.

Recommendations for Future Research

At the beginning of this study, the researcher stated that the development of the SLAT had the possibility to contribute substantially to the field of service-learning. The findings suggest that the SLAT provided an excellent model of performance-based assessment techniques that could transform the way service-learning educational development is assessed. There is still, however, much more research to be done.

One area for further study is the impact of the SLAT on a larger group of students at different educational levels. Because the researcher had few students participate in the study and all were enrolled in higher education courses, it is not appropriate to generalize the findings across all service-learning programs. Future researchers could also test the SLAT on a group of students in different kinds of educational institutions, such as high school, four-year, technical and graduate programs.

Another area future researchers should consider is the voice of community members. As the researcher developed the SLAT, she never received any valuable contributions from interested community partners. Community partners hold an indispensable role to the overall service-learning experience. The partners should have

the opportunity to give suggestions about educational outcomes. Furthermore, they are in the unique position to be in the closest contact with the students during their service experiences.

The SLAT was designed as a template or guide for generic use. Perhaps future research could tailor these tools to specific course curriculum and community projects. This would include experimenting with different types of service-learning criteria and experiences.

The researcher also feels that providing a more guided reflection component could increase the impact of the SLAT. For example, the instructor could devise prompts, which would enable students to reflect and receive feedback on a regular basis. Students could also build a dialogue journal between each other in response to guided reflection questions.

Finally, several participants suggested that the researcher provide models or examples of exemplary work. Future researchers could provide students with more than a few examples of different types of quality work in each category.

Concluding Remarks

As more and more higher education institutions encourage students to participate in service-learning activities, this study will hopefully provide some insights into the merits and benefits of performance-based assessment in service-learning programs. Although the study findings suggest that the SLAT influenced the educational development of students, it remains unclear as to which outcome targets are enhanced by the SLAT. It appears that the educational outcomes for students who engage in service-

learning are possibly influenced by several intermediate components. These components may include the opportunity for the student to take on more leadership roles, develop new friendships, explore their interest and talents, and develop a sense of community pride.

To some degree, the findings of this study support the belief that performance-based assessment techniques have a deeper impact on student educational development in service-learning. The SLAT, however, may really be used as an universal assessment tool for *all* course curriculum.

As we learn more about student learning and development, it is necessary to upgrade assessment/evaluation techniques as well as overall pedagogy to accommodate these new discoveries. It is the researcher's sincere hope that the SLAT is a first step in this important transformation.

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APPENDIX A

COMPARISON OF COMMON STANDARDS AND LEARNING OUTCOMES

Table A1

Comparison of Common Standards and Learning Outcomes

Content Area	Common Standards for Service Programs	Learning Outcomes of this Research
Academic	Effective service-learning efforts strengthen service and academic learning.	<ul style="list-style-type: none"> -High order thinking (critical thinking) -Communication skills (listening, articulate ideas) -Inferred learning skills (nuances that be fully explained in a book but are often very important) -Positive attitude toward learning (not necessarily school)
Career	Knowledge of and some experience with service-related career possibilities.	<ul style="list-style-type: none"> -Realistic ideas about the real world of work -Learn how to select a personally satisfying job that has service related opportunities -Develop sensitivity for diverse work population -Build teamwork philosophies
Civic	Develop a historical understanding of their heritage and other cultures.	<ul style="list-style-type: none"> -Foster a sense of commitment to continue to be active in their community and others less fortunate -Have the ability to make a personal difference in someone's life
Ethical	Develop moral integrity and commitment to truth and values.	<ul style="list-style-type: none"> - Ability to take responsibility and be accountable for actions - Build a set of personal values and beliefs
Personal	Develop the ability to cope with social change and engage in constructive self-criticism.	<ul style="list-style-type: none"> - Awareness of strengths, limits and fears - Change in preconceived understanding (Mental Models) - Willingness to explore new identities in unfamiliar roles - Ability to take responsibility, acknowledge and accept consequences of actions
Social	Develop an understanding and appreciation of cultures different from one's own.	<ul style="list-style-type: none"> - More positive attitude toward living and working with people of diverse backgrounds - Be sensitive or have concern for the welfare of others outside their own community

APPENDIX B

STUDENT FOCUS GROUP QUESTIONS

**Please answer these experience questions. Don't identify yourself or put your ID #.
Please respond in detail.**

Why did you become involved in Service Learning?

What did you expect to accomplish?

What did you hope to learn or achieve through your participation?

Did you accomplish any goals?

What did you learn about yourself from participating?

What did you learn about others?

Did the experience affect your future plans? I.e. career?

What did you learn from the team or individual experience?

Has Service learning changed your life? How?

Academic Area

Did your service learning experience:

Help you become more motivated in classes? How?

What academic/communication skills did you obtain?

Did it make you think more critically? How?

Did you acquire any other personal knowledge not taught in a classroom? Real-life experiences?

Help you decide to stay in school and finish your degree?

Career Area

Did your service learning experience:

Helped you find a career? How?

Did it make you feel more comfortable around people? Work independently, teamwork?

Did you acquire better communication skills? Presentation skills, writing, etc.

Did your experience improve any skills needed for your career? Which ones?

Development of occupational skills? If so, please identify.

Civic Participation Area

Did your service learning experience:

Help you feel more comfortable working with people of different ethnicities? How?
Prejudices?

Did you feel more comfortable starting conversations with people?

Did you gather democratic skills? How?

Did you think you had a positive impact on the community? How?

Did you feel you influenced others learning or contributed to it? How?

Did you have a clear connection between service learning and citizenship?

Ethical Area

Did your service learning experience:

Helped you make better ethical judgements?

Did you become open to different perspectives?

Did you believe in standing up for rights, regardless of what others thought?

Did you accept criticism from others? How?

Personal Area:

Did your service learning experience:

Make an impression on you? How?

Did you acquire and personal skills (responsibility, manners)?

Some educators say that “real learning” means being able to integrate learning in to your own behavior? Do you believe this? How?

What did you learn about yourself from this experience?

Gather a sense of personal achievement?

Did it give you a clear sense of direction toward the person you want to be?

Social Area:

Did your service learning experience:

Help you feel comfortable around others socially?

Help you meet new people, improve first impressions?

Help you make a difference in the world?

Help you tolerate and appreciate others?

Help you work on social justice? How?

APPENDIX C

INSTRUCTOR RUBRICS FOR SERVICE-LEARNING

Table C1

Academic Growth Rubric for Service-Learning: Changes in students' high-order thinking and self-knowledge of own learning expectations. Motivation toward a future of lifelong learning.

Elements	Level of Quality			Assessment Options Oral, Written, Visual
	Exceptional-3	Proficient-2	Developing-1	
Communication Skills	Student consistently demonstrates in speech and manner an overall understanding of words and processes used in class and text. Communicates with diverse audiences in a variety of ways.	Student sometimes demonstrates in speech and manner an understanding of words and processes used in class and text. Frequently communicates with diverse audiences.	Student rarely demonstrates in speech and manner an understanding of words and processes. May communicate with diverse audiences.	<ul style="list-style-type: none"> ➤ Oral presentation ➤ Observations ➤ Interview(peer, supervisor, mentor) ➤ Pre/Post Essay ➤ Pre/Post Video
Critical Thinking Skills	Student thoroughly identifies valid alternative in problem-solving situations. Can analyze issues associated with complex subject. Can substantiate or justify choices made in decision-making.	Student substantially identifies problem-solving situations. Attempts to analyze issues associated with complex subjects. Seeks to substantiate or justify decision-making choices.	Student ineffectively identifies problem-solving situations. Might analyze issues associated with complex subjects. Might substantiate or justify decision-making choices.	<ul style="list-style-type: none"> ➤ Portfolio ➤ Email responses ➤ Teach a lesson ➤ Pre/Post Essay
Personalization-Values	Student usually discovers internal interest in academic subject. Shows deep awareness of one's own understanding and appreciation for others. Demonstrates interpersonal skills and ability to work well with others.	Student frequently discovers interest in academic subject. Strives to show deep awareness of one's own understanding and appreciation for others. Has some interpersonal skills and will work with others.	Student rarely discovers interest in academic subject. May show deep awareness of one's own understanding. Shows few interpersonal skills. Rarely works with others.	<ul style="list-style-type: none"> ➤ Feedback evaluation ➤ Reflection log ➤ Email responses
Bridges to Real World	Student always engages in effective interpretations between life experiences and classroom instruction. Makes thought provoking connections with work-related situations. Develops networking techniques.	Student attempts some interpretations between life experiences and classroom instruction. May seek thought provoking connections in work-related situations and begins networking techniques.	Student has few interpretations between life experiences and classroom instruction. Rarely has thought provoking connections and poor networking techniques.	<ul style="list-style-type: none"> ➤ Oral presentation ➤ Reflection log ➤ Portfolio ➤ Dialog journal <p>©Vaughn 2002</p>

Note: Changes in students' attitudes and motivation toward school and learning, understanding of relevance of academic content and overall school performance (Furco 1997).

Table C2

Career Exploration Rubric for Service-Learning: Changes in student's learning and personal development of career opportunities. Makes decisions that are discipline related and concentrates energies on deepening their understandings. Fully integrates service into career choices.

Elements	Level of Quality			Assessment
	Exceptional-3	Proficient-2	Developing-1	Options Oral, Written, Visual
Career Investigation	Student thoroughly analyzes career options and develops strategic career plans. Gathers and examines rich information and resources about proposed career field.	Student sometimes examines career options and begins developing career plans. Shows few information resources about proposed career field or options.	Student rarely explores career options and shows little career plans. Gathers no information resources about proposed career field.	<ul style="list-style-type: none"> ➤ Oral presentation ➤ Shadowing ➤ Interviews(supervisor, mentor) ➤ Pre/Post Essay ➤ Pre/Post Internet
Resume Building	Student consistently develops an accurate and detailed profile of their skills. Collects materials to formulate career decisions. Illustrates and highlights skills & experiences.	Student frequently forms a detailed profile of their skills. Collects some materials to explore career decisions. Examines skills & experiences.	Student rarely considers their skills. Collects no materials to formulate career decisions. Has not considered important skills & experiences.	<ul style="list-style-type: none"> ➤ Portfolio ➤ Resume ➤ Pre/Post Essay
Personal Insights	Student is always open-minded. Internalizes skills and knowledge gained from new experiences. Identifies and analyzes accomplishments for evidence of natural skills/talents and academic learning.	Student begins to be open-minded. May internalize skills and knowledge gained from new experiences. Frequently identifies accomplishments of natural skills/talents.	Student is always open-minded. Shows no knowledge of skills gained from new experiences. Cannot recognize accomplishments of natural skills.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Email responses ➤ Pre/Post Video ➤ Oral Presentation ➤ Pre/Post Essay
Collaboration/ Networking	Student effectively engages in practices that contribute to overall work environment & works towards a specific goal. Comfortable relating and working in a variety of situations. Demonstrates networking techniques.	Student minimally engages in practices that contribute to work environment & considers working towards a specific goal. Is seldom comfortable relating and working in a variety of situations. Demonstrates few networking techniques.	Student ineffectively engages in practices that contribute to work environment. Is not comfortable relating and working in a variety of situations. Has not demonstrated networking techniques.	<ul style="list-style-type: none"> ➤ Pre/Post Video ➤ Reflection log ➤ Dialog journal ➤ Correspondence <p>©Vaughn 2002</p>

Note: Changes in students' formulation of career plans and emphasis on finding a career that is personally rewarding and/or beneficial to others (Furco, 1997).

Table C3

Civic Participation Rubric for Service-Learning: Changes in students' commitment to become involved in activities outside their normal community.

Elements	Level of Quality			Assessment
	Exceptional-3	Proficient-2	Developing-1	Options Oral, Written, Visual
Community Involvement	Student consistently engages in community activities with sustained values. Develops participatory skills. Encourages others to recognize cultural factors and develops functional relationship with community. Helps peers to resolve problems/differences peacefully.	Student sometimes engages in community activities with sustained values. Starts to encourage cultural factors. Notices relationships with community. Considers resolving community problems peacefully.	Student rarely engages in community activities and shows no recognition between cultural factors and community. Does not help solve community problems peacefully.	<ul style="list-style-type: none"> ➤ Reflection Log ➤ Pre/Post Essay ➤ Dialog Journal ➤ Oral Presentation ➤ Pre/Post Video
Interpersonal Skills	Student thoroughly enhances political knowledge of diverse community issues. Develops communication skills and expresses ideas and values. Expands personal attitudes towards community and is respectful of it's diverse members. Develops plan of action and experiences the effect-iveness of thoughtful group effort.	Student becomes more involved in political issues. Identifies diverse com-munity members. Begins to see advantages for plan of action and starts to work with other group members.	Student hardly ever ack-nnowledges diverse community issues and seldom expresses ideas or personal attitudes toward community members. No preparation for action plan. Has problems with group members.	<ul style="list-style-type: none"> ➤ Reflection Log ➤ Oral Presentation ➤ Pre/Post Essay
Model Citizenship	Student consistently challenges political and civil issues. Makes connection between community issues and societal needs. Is responsive to less fortunate. Desires to engage in political issues or political actions to help community members.	Student frequently chal-lenges political and civil issues. Makes brief connect-ions between community issues and societal needs. Shows some comparison for less fortunate. Might contribute to political issues.	Student seldom chal-lenges political and civil issues. Makes no connection between community issues and societal needs. Has no desire to participate in political issues.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Oral Presentation ➤ Pre/Post Essay ➤ Pre/Post Video ➤ Dialog Journal
Systems Analysis	Student always demonstrates awareness of organizations, which have direct and indirect influence on how persons are served or dehumanized.	Student frequently shows awareness of direct and indirect influence on persons but does not understand how they are dehumanized.	Student rarely recognizes how organizations have a direct and indirect influence on persons they serve.	<ul style="list-style-type: none"> ➤ Pre/Post Video ➤ Pre/Post Essay ➤ Oral Presentation <p>©Vaughn 2002</p>

Note: Changes in students' awareness of societal issues and willingness to take on active roles in the community (Furco, 1997).

Table C4

Ethical Growth Rubric for Service-Learning: Changes in students' exploration of surrounding communities and become advocates of ethical behavior and justice. Gains new insight about others' moral challenges, injustices and misconceptions.

Elements	Level of Quality			Assessment Options Oral, Written, Visual
	Exceptional-3	Proficient-2	Developing-1	
Moral Reasoning	Student always displays sensitivity to ideas and needs of others without dismissing or degrading them. Constantly debates ethics and freedom issues. Develops detailed ethical framework. Exchanges ideas of values clarification.	Student frequently displays ideas and needs of others without degrading them. Occasionally converses about ethics and freedom issues. Outlines ethical framework. Looks for values clarification.	Student rarely displays ideas and needs of others without degrading them. Irregularly converses about ethics and freedom issues. Looks for ethical framework. Considers values clarification.	<ul style="list-style-type: none"> ➤ Reflection Log ➤ Pre/Post Essay ➤ Dialog Journal ➤ Oral Presentation
Attitude Development	Student consistently expresses non-judgmental attitudes toward others' values. Encourages development of good habits and behavior. Accepts different character beliefs and philosophies. Takes into account minority views.	Student frequently expresses attitudes about others' values. Considers the development of good habits and behavior. Moderately accepts different character beliefs. Contemplates minority views.	Student rarely expresses attitudes about others' values. Searches for good habits and behaviors. Begins to accept different character beliefs.	<ul style="list-style-type: none"> ➤ Reflection Log ➤ Oral Presentation ➤ Pre/Post Essay
Character Formation	Student thoroughly commits to learning, respect for the truth, compassion, honesty, and the inner strength and determination to pursue well-defined goals. Develops sense of accountability for their actions. Heightens awareness of character development.	Student substantially commits to learning, compassion, honesty and pursuit of well-defined goals. Moderately develops sense of accountability for their actions. Improves character development.	Student partially commits to learning, compassion, honesty and pursuit of well-defined goals. Begins to develop sense of accountability for their actions. Considers character development.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Oral Presentation ➤ Pre/Post Essay <p>©Vaughn 2002</p>

Note: Changes in students' attitudes for standing up for what is right, willingness to participate on behalf of justice, and their ability to better distinguish between right and wrong (Furco, 1997).

Table C5

Personal Growth Rubric for Service-Learning: Changes in students' choices that demonstrate the integration of information they gain about themselves through self-discovery. Identify connections with other students who share same personal values, sense of satisfaction and accomplishment.

Elements	Level of Quality			Assessment
	Exceptional-3	Proficient-2	Developing-1	Options Oral, Written, Visual
Leadership Skills	Student consistently displays leadership qualities and related character traits. Demonstrates capacity to lead, ability to take action and effective-ness in accomplishing goals. Takes primary role in decision-making process and exercises leadership in student-owned gatherings.	Student frequently displays leadership qualities. Shows capacity to lead, ability to take action and to establish goals. Still looks to someone else as decision-maker and leader in student-owned gatherings.	Student rarely displays leadership qualities. Begins to demonstrate capacity to lead, but does not take action to establish goals. Is a follower student-owned gatherings.	<ul style="list-style-type: none"> ➤ Oral presentation ➤ Reflection Log ➤ Pre/Post Essay ➤ Portfolio
Self - Knowledge	Student always expresses higher aspirations and understandings of self-empowerment. Discovers sense of spiritual growth. Acknowledges benefits gained from service-learning. Finds intrinsic worth.	Student sometimes expresses aspirations of self-empowerment. Few thoughts of spiritual growth. Considers benefits gained from service-learning. Respects intrinsic worth.	Student ineffectively expresses aspirations of self-empowerment. Few thoughts of spiritual growth. No exploration of benefits gained from service-learning. Observes intrinsic worth.	<ul style="list-style-type: none"> ➤ Portfolio ➤ Oral Presentation ➤ Pre/Post Essay
Empathy	Student effectively develops high level of concern for others and fully communicates experience in explicit manner. Identifies connections with other students who share personal values, sense of satisfaction and accomplishment.	Student moderately develops a level of concern for others and starts communicating experience in explicit manner. Makes certain connections with other students who share values and accomplishments.	Student ineffectively develops a level of concern for others and cannot communicate experiences. Makes no connections with other students.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Pre/Post Video ➤ Oral Presentation ➤ Pre/Post Essay
Stereotype Challenges	Student consistently appreciates and accepts people from different cultures. Demonstrates a sense of acceptance for everyone encountered. Develops a more positive view of people compared to own biases.	Student frequently appreciates and accepts people from different cultures. Shows a certain acceptance for everyone encountered. Develops a moderate view of people compared to own biases.	Student rarely appreciates or accepts people from different cultures. Begins to develop a view of people compared to own biases.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Dialog journal ➤ Correspondence ➤ Pre/Post Essay <p>©Vaughn 2002</p>

Note: Changes in students' self-esteem, sense of self-empowerment, and overall leadership skills (Furco, 1997).

Table C6

Social Change Growth Rubric for Service-Learning: Changes in students' perceptions toward social justice, racism, classism and economic status.
 Ability to sense a shared purpose of social impact with racially and culturally diverse populations.

Elements	Level of Quality			Assessment
	Exceptional-3	Proficient-2	Developing-1	Options Oral, Written, Visual
Cultural Challenges	Student always communicates principles of opportunity, equality, civility and respect for all people. Readily accepts all socioeconomic groups. Shows mutual respect for different ethnic populations.	Student frequently communicates opportunities, civility and respect for all people. Moderately accepts all socio-economic groups. Considers mutual respect for different ethnic populations.	Student rarely communicates opportunities, civility and respect for all people. Begins to accept all socioeconomic groups. Shows little respect for different ethnic populations.	<ul style="list-style-type: none"> ➤ Oral presentation ➤ Reflection Log ➤ Pre/Post Essay ➤ Pre/Post Video
Change Agent	Student thoroughly expresses alternatives for issues of discrimination, inequity, prejudice, harassment, and violence. Advocates education and empowerment to diversity groups. Identifies high concerns of social justice and inequalities of opportunities and resources.	Student substantially expresses issues of discrimination, prejudice and harassment. Moderately advocates education to diversity groups. Shows concerns of social justice and inequalities of opportunities and resources.	Student partially expresses issues of discrimination and harassment. Shows few considerations to diversity groups. Shows little concern of social justice.	<ul style="list-style-type: none"> ➤ Portfolio ➤ Oral Presentation ➤ Pre/Post Essay
Social Transformation	Student is consistently identifying elements of character, trust-worthiness, respect, responsibility, fairness, caring with good citizenship. Continuously promotes principles of social justice in order to work effectively in global workplace.	Student frequently associates elements of character, respect, and responsibility with good citizenship. Occasionally promotes principles of social justice in order to work in global workplace.	Student rarely discovers elements of character, respect, and responsibility with good citizenship. Irregularly recognizes principles of social justice in order to work in global workplace.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Pre/Post Video ➤ Oral Presentation ➤ Pre/Post Essay
Self Education	Student consistently seeks information about social change issues and is willing to educate themselves about those issues.	Student substantially searches for information about social change issues and considers educating themselves about those issues.	Student partially looks for information about social change issues and is not yet willing to educate themselves about issues.	<ul style="list-style-type: none"> ➤ Reflection log ➤ Pre/Post Essay

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Note: Changes in students' ability to work with others and attitudes toward those who are culturally and racially different (Furco, 1997).

APPENDIX D

STUDENT-FRIENDLY RUBRICS IN SERVICE-LEARNING

Table D1

Student Friendly Checklist for Academic Growth in Service-Learning

Elements	Student demonstrates ability to:	Level of Quality			Assessment Options Oral, Written, Visual
		Exceptional	Proficient	Developing	
Communication Skills	Express ideas clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Oral presentation
	Adjust tone & style to audience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Observations
	Use languages and mannerisms common to community members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Interview (peer, supervisor, mentor)
	Incorporate new words into their vocabulary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Pre/Post Essay ➤ Pre/Post Video
Critical Thinking Skills	Use variety of complex reasoning process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Portfolio
	Analyze info & situations in specific ways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Email responses
	Identify & describe important criteria to use when I evaluate my choices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Teach a lesson
	Clearly states opinion on topic & explains reasons for that opinion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Pre/Post Essay
Personalization-Values	Begin to understand course work and how it fits into real-life situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Feedback evaluation
	Listen to feedback constructively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Reflection log
	Open to other's ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Email responses
	Be more prepared and feel responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Look presentable and clean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Consider themselves mentors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bridges to Real-World	Make connections from class to life and community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Oral presentation
	Try to change situations that don't work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Reflection log
	Work to help achieve the goals of group or service partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Portfolio
	Work peacefully with community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Dialog Journal
	Talk to community partner about helpful ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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Note: Student should be seeking academic growth in the following:
Transformation in students' attitudes and enthusiasm toward learning, grasp of subject matter,
Appreciation for hard work and realize value of academics.

Exceptional:
Proficient:
Developing:

Consistently demonstrates a deep understanding of skill
Demonstrates mastery and some application of skill
Demonstrates an initial understanding of the skill

Table D2

Student Friendly Checklist for Career Exploration in Service-Learning

Elements	Student demonstrates ability to:	Level of Quality			Assessment Options Oral, Written, Visual
		Exceptional	Proficient	Developing	
Career Investigation	Investigate career options on internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Oral presentation <input type="checkbox"/> Shadowing <input type="checkbox"/> Interview (peer, supervisor, mentor) <input type="checkbox"/> Pre/Post Essay <input type="checkbox"/> Pre/Post Video
	Begin to analyze different careers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Talk to people in career field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Research salaries and careers with service aspects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Resume Building	Begin listing skills, accomplishments and knowledge acquired at service experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Portfolio <input type="checkbox"/> Resume <input type="checkbox"/> Pre/Post Video
	Build sample resumes and become familiar with career choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Consider service connections in career choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Gather paperwork and research potential employers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Personal Insights	Be open-minded to all career options, not just careers that make a lot of money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Oral Presentation <input type="checkbox"/> Pre/Post Essay <input type="checkbox"/> Pre/Post Video <input type="checkbox"/> Reflection log <input type="checkbox"/> Email responses
	Internalize feelings about service partners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Look at personal skills and talents to see how skills might contribute to community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Compare skills developed at service site with those from class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Collaboration/Networking	Discuss with others career choices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Correspondence <input type="checkbox"/> Reflection Log <input type="checkbox"/> Pre/Post Video <input type="checkbox"/> Dialog Journal
	Make valuable connections with friends-network with friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Work well with others but may work independently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Contributes to overall workplace environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Follow orders and practices at site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	©Vaughn 2002
	May consider giving advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note: Student should be seeking academic growth in the following:
 Transformation in students' learning and personal development of career opportunities.
 Approaches career plans with open mind and service intent.

Exceptional:
Proficient:
Developing:

Consistently demonstrates a deep understanding of skill
 Demonstrates mastery and some application of skill
 Demonstrates an initial understanding of the skill

Table D3

Student Friendly Checklist for Civic Participation in Service-Learning

Elements	Student demonstrates ability to:	Level of Quality			Assessment Options Oral, Written, Visual
		Exceptional	Proficient	Developing	
Community Involvement	Start mediation classes or program at site. Explain benefits to mediation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Oral presentation
	Communicate responsibility to help, serve and give back to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Reflection Log
	Share Experiences and feelings for community members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Dialogue Journal
	Desire to join political group and vote	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Pre/Post Essay Pre/Post Video
Interpersonal Skills	Become aware of community needs. "Awareness of overall differences"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Reflection Log
	Acknowledge and accept differences. Encourage differences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Oral Presentation
	Develop organizational skills. (Use of calendars, on-time, neatness/clean)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Pre/Post Essay
	Respect others even though they may not agree with the way they live	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Visualize where others have come from—disagrees with many stereotypes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Model Citizenship	Begin to consider local/national politics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Pre/Post Video
	Desire involvement in agencies which help less fortunate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Pre/Post Essay
	Feel helplessness for poor/non-citizens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Reflection Log
	Examine other avenues for less fortunate and place to get help	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Dialogue Journal Oral Presentation
Systems Analysis	Look carefully at where people work and how companies contribute to community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Oral Presentation
	Consider how people get in this predicament	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Pre/Post Essay
	Recognize others' contributions to society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ Pre/Post Video

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Note: Student should be seeking academic growth in the following:
Transformation in students' community involvement and development of knowledge of current political issues. Becomes advocate for less fortunate in community.

Exceptional:
Proficient:
Developing:

Consistently demonstrates a deep understanding of skill
Demonstrates mastery and some application of skill
Demonstrates an initial understanding of the skill

Table D4

Student Friendly Checklist for Ethical Growth in Service-Learning

Elements	Student demonstrates ability to:	Level of Quality			Assessment Options Oral, Written, Visual
		Exceptional	Proficient	Developing	
Moral Reasoning	Become sensitive to others' ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Oral presentation Reflection Log Dialogue Journal Pre/Post Essay
	Discuss ethical issues with classmates, family and friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Self-reflect on internal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Determine community members feelings and considers them equals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Attitude Challenges	Link minority views with own ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reflection Log Oral Presentation Pre/Post Essay
	Develop passion to learn in classes and from others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Become non-judgmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Accept different beliefs and values from cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Encourage good behaviors within community members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Character Formation	Have self-respect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feedback evaluation Email Responses Reflection Log ©Vaughn 2002
	Listen to feedback constructively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Be open to others' ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Be more prepared and feel responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Look professional and clean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note: Student should be seeking academic growth in the following:
 Transformation in students' awareness of moral challenges, consideration of individuals' ideas and misconceptions of ethical issues

Exceptional:
Proficient:
Developing:

Consistently demonstrates a deep understanding of skill
 Demonstrates mastery and some application of skill
 Demonstrates an initial understanding of the skill

Table D5

Student Friendly Checklist for Personal Growth in Service-Learning

Elements	Student demonstrates ability to:	Level of Quality			Assessment Options Oral, Written, Visual
		Exceptional	Proficient	Developing	
Leadership Skills	Become outspoken and give advice or information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Oral presentation Reflection Log Pre/Post Essay Portfolio
	Identify important and useful choices for decision-making tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Take charge in problematic group situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Assume responsibility for actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Self-Knowledge	Need to give back to community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Portfolio Oral Presentation Pre/Post Essay
	Become someone who can make a difference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Feel the "power" and rewards of helping others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Develop personal understanding of community members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Become more confident and self-aware in personal development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Empathy	Acknowledge similarities between community members (poor vs. rich)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre/Post Video Pre/Post Essay Reflection Log Oral Presentation
	Share experiences with friends and family. Discuss same values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Become aware of value to give to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Develop emotional concern for community members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Stereotype Challenges	Reduce typical stereotypes. "Poor people are poor for a reason"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correspondence Pre/Post Essay Dialogue Journal Reflection Log
	Develop tolerance and acceptance of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Appreciate different cultures and beliefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Note: Student should be seeking academic growth in the following:
Transformation in students' discovery of themselves through their service-learning experience
and develop sense of satisfaction and accomplishment.

Exceptional:
Proficient:
Developing:

Consistently demonstrates a deep understanding of skill
Demonstrates mastery and some application of skill
Demonstrates an initial understanding of the skill

Table D6

Student Friendly Checklist for Social Growth in Service-Learning

Elements	Student demonstrates ability to:	Level of Quality			Assessment Options Oral, Written, Visual
		Exceptional	Proficient	Developing	
Cultural Challenges	Acknowledges cultural and social economic classes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Oral presentation ➤ Reflection Log ➤ Pre/Post Essay ➤ Pre/Post Video
	Respect ethnic differences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Appreciate and value different cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	View positive aspects of community member heritage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Change Agent	Voice concerns about discrimination, prejudice, violence and harassment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Portfolio ➤ Oral Presentation ➤ Pre/Post Essay
	Express importance of school, especially college	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Influence and convince community members importance of self-worth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Show community members how to make a difference or to improve their own community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Social Transformation	Promote fairness and justice for all community members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Pre/Post Video ➤ Pre/Post Essay ➤ Reflection Log ➤ Oral Presentation
	Acknowledge global ramifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Relate community needs with social issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Identify elements of character, trust, respect, responsibility, caring in community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Social Education	Read and discuss journal articles/books about social change"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	➤ Pre/Post Essay ➤ Reflection Log
	Educate others about local issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
					©Vaughn 2002

Note: Student should be seeking academic growth in the following:
 Transformation in students' perceptions towards social-justices, racism, and socioeconomic equality. Awareness of social impact on racially and culturally diverse populations.

Exceptional:
Proficient:
Developing:

Consistently demonstrates a deep understanding of skill
 Demonstrates mastery and some application of skill
 Demonstrates an initial understanding of the skill

APPENDIX E

SERVICE-LEARNING SKILLS CHECKLIST FORM

Analyzing	Persuading
Appraising	Planning Activities
Adapting	Predicting
Adjusting	Presenting
Categorizing	Prioritizing
Advising	Questioning
Assessing	Reading
Assisting	Reasoning
Building	Recommending
Communicating	Relating
Coaching	Reorganizing
Collaborating	Researching
Computer Word Processing	Resolving
Conferring/Conferencing	Self-Assessing
Counseling	Sensing
Designing	Serving
Estimating	Setting Goals
Evaluating	Sharing
Following Directions	Speaking
Giving	Summarizing
Helping	Teaching/tutoring
Interviewing	Team-building
Judging	Tutoring
Listening	Understanding
Managing Time	Using Computer databases
Negotiating	Using computer spreadsheets
Observing	Visualizing
Perceiving	Writing

APPENDIX F

ABILITIES ENHANCED BY SERVICE-LEARNING SHEET

Personal Growth – applies to the development of characteristics related to self-improvement and self-actualization.

- Self-confidence and self-esteem
- Ability to take risks and accept challenges
- Self-understanding
- A sense of usefulness and purpose
- A sense of identity
- Personal values and beliefs
- Independence and autonomy

Social Growth – includes the social skills that are necessary for relating to others in society.

- Communication skills
- A sense of belonging
- Leadership skills
- Peer team affiliation
- Ability to work cooperatively with others
- A sense of caring for others
- Acceptance and awareness of others from diverse and multicultural backgrounds

Academic or Intellectual Growth – encompasses the cognitive skills necessary to enhance academic learning and acquire higher level thinking skills.

- Application of knowledge, relevance of curriculum
- Problem-solving and decision-making skills
- Critical thinking skills
- Skills in learning from experience
- Use of all learning styles
- Development of a positive attitude toward learning

Civic Participation – refers to the responsibilities of participation in a multicultural society and of citizenship in a democracy.

- A sense of responsibility to contribute to society
- Democratic participation (informed citizen)
- Awareness of community needs
- Organizational skills
- Social action skills (persuasion, policy research, petitioning), empowerment, belief in ability to make a difference.

Career Exploration – is the skills that help students gain work experience and make choices about possible career directions.

- Human service skills
- Realistic ideas about the world of work
- Professionalism (dress, grooming, manners)
- Ability to follow directions
- Ability to function as a member of a team
- Reliable working skills (punctuality, consistency, regular attendance) contacts and references for future job possibilities.

Ethical Growth – refers to the skills necessary for students to become aware of moral challenges.

- Accountable for actions
- Respect, compassion, and non-judgmental
- Sensitivity to others ideas

APPENDIX G

SCORING RUBRICS FOR SERVICE-LEARNING

Table G1

Scoring Rubric for Academic Growth in Service Learning

Student Name: _____ Class: _____ Assessment Option: _____ Date: _____

Elements	Criteria for Exceptional	Self Evaluation	Peer Evaluation	Instructor Evaluation
Assessment option displays:		Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments
Communication Skills Possible Points 3-2-1	➤ Ideas clearly and utilizes words and methods found in class and text. ➤ Knowledge of creative communication tools to utilize when learning.			
Critical Thinking Skills Possible Points 3-2-1	➤ Issues and situations into tasks using a variety of tools. ➤ Logical grasp of subject. ➤ View with sound argument or evidence.			
Personalization-Values Possible Points 3-2-1	➤ New skills acquired in class. ➤ Sensitivity to others' learning styles. ➤ Own capabilities and the reality that others have different perspectives. ➤ Future academic goals and needed experiences.			
Bridges to Real World Possible Points 3-2-1	➤ Connection between classroom methods and ideas to the "real world of work." ➤ Awareness of "real world approaches."			

Note: 1) Student uses correct pronunciations, spelling and grammar ; 2) assessment option contains rich, vivid and powerful details.

Overall Comments: _____

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Table G2

Scoring Rubric for Career Exploration in Service Learning

Student Name: _____ Class: _____ Assessment Option: _____ Date: _____

Elements	Criteria for Exceptional	Self Evaluation	Peer Evaluation	Instructor Evaluation
Assessment option displays:		Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments
Career Investigation Possible Points 3-2-1	➤ Career options. ➤ Effective career plans ➤ Decisions that are related to academic goals			
Resume Building Possible Points 3-2-1	➤ Huge collection of materials to make career decisions. ➤ Service learning rewards. ➤ Skills, experiences and educational goals.			
Personal Insights Possible Points 3-2-1	➤ Open-mindedness ➤ Personal skills and knowledge from new experiences. ➤ Natural skills and accomplishments. ➤ Strengths, weaknesses and challenges.			
Collaboration/Networking Possible Points 3-2-1	➤ Appreciation of people from different cultures. ➤ Comfortable feelings working with people. ➤ Contributions to organizational climate. ➤ Independently & team member to achieve specific goals.			

Note: 1) Student uses correct pronunciation, spelling and grammar; 2) assessment option contains rich, vivid and powerful details.

Overall Comments: _____

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Table G3

Scoring Rubric for Civic Participation in Service Learning

Student Name: _____ Class: _____ Assessment Option: _____ Date: _____

Elements	Criteria for Exceptional	Self Evaluation	Peer Evaluation	Instructor Evaluation
Assessment option displays:		Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments
Community Involvement Possible Points 3-2-1	➤ Engagement in community activities with lasting values. ➤ Responsibility, giving and respect skills. ➤ Recognition of cultural differences and relationship with community. ➤ Positive political issues.			
Interpersonal Skills Possible Points 3-2-1	➤ Concepts from diverse political issues. ➤ Communication skills, personal ideas and values. ➤ Altered attitude towards community members.			
Model Citizenship Possible Points 3-2-1	➤ Challenges to political and civil issues. ➤ Connection between community issues and societal needs. ➤ Activist for less fortunate. ➤ Methods to help community members. ➤ Consideration for others' values.			
Systems Analysis Possible Points 3-2-1	➤ Awareness of organizational influences and dehumanization.			

Note: 1) Student uses correct pronunciation, spelling and grammar; 2) assessment option contains rich, vivid and powerful details.

Overall Comments: _____

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Table G4

Scoring Rubric for Ethical Growth in Service Learning

Student Name: _____ Class: _____ Assessment Option: _____ Date: _____

Elements	Criteria for Exceptional	Self Evaluation	Peer Evaluation	Instructor Evaluation
Assessment option displays:		Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments
Moral Reasoning Possible Points 3-2-1	➤ Sensitivity to ideas and needs of others without dismissing or degrading them. ➤ Ethics and freedom issues. ➤ Detailed ethical framework to address wide range of issues.			
Attitude Development Possible Points 3-2-1	➤ Non-judgmental attitudes toward others' values. ➤ Development of good habits of behavior. ➤ Acceptance of different character ideas and attitudes.			
Character Formation Possible Points 3-2-1	➤ Evidence of personal learning skills: respect, compassion, honesty, responsibility, self-discipline, giving. ➤ Determination to pursue well-defined goals. ➤ Becomes accountable for their actions.			

Note: 1) Student uses correct pronunciation, spelling and grammar; 2) assessment option contains rich, vivid and powerful details.

Overall Comments: _____

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Table G5

Scoring Rubric for Personal Growth in Service Learning

Student Name: _____ Class: _____ Assessment Option: _____ Date: _____

Elements	Criteria for Exceptional	Self Evaluation	Peer Evaluation	Instructor Evaluation
Assessment option displays:		Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments
Leadership Skills Possible Points 3-2-1	➤ Leadership qualities. ➤ Demonstrates patience, understanding and hard-working traits. ➤ Capacity to lead and ability to take action			
Self-Knowledge Possible Points 3-2-1	➤ Higher ambitions and greater awareness of self-fulfillment. ➤ Sense of spiritual growth. ➤ Recognition of benefits gained from service learning.			
Empathy Possible Points 3-2-1	➤ Connections with other students who share personal values, sense of satisfaction and accomplishment. ➤ High level of concern for others and communicates experience in clear ideas.			
Stereotype Challenges Possible Points 3-2-1	➤ Appreciation and acceptance of people from different cultures. ➤ Kindness, trustworthy and honesty traits. ➤ A more positive view of people. ➤ Considers own biases.			

Note: 1) Student uses correct pronunciation, spelling and grammar; 2) assessment option contains rich, vivid and powerful details.

Overall Comments: _____

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Table G6

Scoring Rubric for Social Growth in Service Learning

Student Name: _____ Class: _____ Assessment Option: _____ Date: _____

Elements	Criteria for Exceptional	Self Evaluation	Peer Evaluation	Instructor Evaluation
Assessment option displays:		Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments	Beginning Semester Feedback/Comments
Cultural Challenges Possible Points 3-2-1	➤ Encouragement of equality and respect for diverse populations. ➤ Understanding and promotes socioeconomic groups.			
Change Agent Possible Points 3-2-1	➤ Communication of alternatives for issues of discrimination, equity, prejudice, harassment, and violence. ➤ Promotion of education and empowerment to diversity groups.			
Social Transformation Possible Points 3-2-1	➤ Elements of character such as trustworthiness, respect, responsibility, fairness, caring and good citizenship. ➤ Consideration of personal issues, biases and social injustices. ➤ Acceptance of principles for social justice. ➤ Effectiveness in global workplace.			
Self-Education Possible Points 3-2-1	➤ Social change literature ➤ Willingness to self-educate about different authors.			

Note: 1) Student uses correct pronunciation, spelling and grammar; 2) assessment option contains rich, vivid and powerful details.

Overall Comments: _____

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APPENDIX H

SERVICE-LEARNING PERSONAL IMPROVEMENT PLAN

.

Class: _____
Semester: _____

**Service Learning Personal
Improvement Plan
For**

My Strengths/Evidence	My Weaknesses/Evidence
<div data-bbox="850 1089 1264 1166">Targets for Improvement</div>	

Action Steps	Timeline	Monitoring/Evaluating
<div data-bbox="569 855 1266 945" style="border: 1px solid black; padding: 5px; text-align: center;"> Reflection-Insights Gained from the Process </div>		

APPENDIX I

TYPES OF SERVICE-LEARNING ASSESSMENT OPTIONS

Types of Service-Learning Assessment Options

There are many sources of information about service-learning success. No one source or measurement is necessarily better than another. Each measurement can provide useful and different information about service-learning success. Interpretation of the findings is valid only when linked to the circumstances under which service-learning performance are assessed. The most accurate profile of student achievement is based on the findings gathered from assessing service-learning performances in a variety of contexts.

<u>Category</u>	<u>Strategy</u>	<u>Information it Provides</u>
1. Reflective Log	Reflective journal Dialogue journal Feedback journal	deeper-understanding, written ability, pre/post comparisons, feedback, personal connections, social skills, personal experience, goal settings, background knowledge, resolving, reasoning, visualizing, goal setting
2. Observations	Interviews Conferences Checklists	immediate evaluation and feedback of learning, focuses on specific expectations, social skills and behaviors, teamwork, interactions, collaboration, networking, knowledge of context, levels of understanding, attitudes, oral language skills, listening skills, leadership skills, tolerance, respecting, counseling
3. Performance Tasks	Pre/Post Video Productions Presentations Oral, Dance, Song Demonstrations Computer software designs	creativity, understanding, end product, public speaking and performing group or team-building skills, application of new skills, complex-reasoning skills, critical analysis, real-life application, processing of information, cooperation, conferencing, sharing
4. Projects	Lessons plans Models Experiments/Lab reports Portfolios Scrapbooks	knowledge of content areas and beyond class material, application, planning (formulating and testing) research skills, demonstration of evidence, organization, time-management, process analysis, cumulative information, investigation, comprehension, planning activities
5. Written Language	Pre/Post Essays Email Responses Journals Research Papers Stories Proposals	systematic organization, comprehension, following directions, writing skills, complex reasoning, research skills, listening, computer word Portfolios processing, vocabulary, expression, evaluating

<u>Category</u>	<u>Strategy</u>	<u>Information it Provides</u>
6. Oral Language	Oral Presentations Debates Story telling Retelling Songs/Dance Dialogue Log Audio Tapes	synthesizing, speaking and listening skills, debating, complex reasoning, decision-making skills, appraising, interpretation, articulation and pronunciation skills, acquiring of new languages and mannerisms
7. Visual Communication	Video Tapes Photographs Illustrations Story Boards	experiential knowledge, comprehension, systematic organization, creativity, designing, application of knowledge and skills, hands-on experience, real-world knowledge, reorganizing, questioning, perceiving

Develop Criteria for Performance

What should each strategy include?

Give student evidence of what an excellent/exceptional strategy.

Use exceptional models or give models for each level of quality.

Who Does the Assessment?

Students

Peers

Instructors

Community Partners

Collecting and Analyzing Data or Evidence

There should be collection of work samples over a period

of time. This evidence will show a progression of learning.

The collection of work samples may be analyzed by just the instructor, group of peer students, or the community partner.

Communicate the Learning

Feedback is very important. Students will have a better understanding of the learning if they receive communication in the learning process. There are a variety of types: conferencing, emailing, progress reports and group sessions. ©Vaughn 2002

APPENDIX J

INSTRUCTOR VERBAL INSTRUCTIONAL SHEET

FOR SERVICE-LEARNING ASSESSMENT TOOLKIT

Instructor Verbal Instructional Sheet For Service-Learning Toolkit

Step-by-Step Process Approximate training time: 2 hours.

Assessment

- Primary emphasis in assessment is twofold: on learning about learning, and using that learning for short-term as well as long-term curriculum development
- meaningful learning is reflective, constructive, and self-regulated

Service-Learning Assessment

- Traditional assessments does not work with service-learning.
- Service-learning is a performance.
- Experiment with real-world applications of classroom learning
- Provides valuable feedback to the instructor
- “Without assessment, service-learning is just service”

Service-Learning Performance-Based Assessment

- Value beyond the assessment itself – the assessment task should be meaningful in and of itself and not derive value just from being a “test”.
- Student-created response – having a record of an actual student behavior observed and evaluated or an evaluated product brings criterion and assessment closer together.
- Realistic focus – this characteristic relates to the contemporary need to show students that they are involved in “meaningful” (real-world) learning that will have an ultimate tangible payoff.
- Application of knowledge – the need to measure problem-solving and critical thinking skills.
- Multiple data sources – a variety of approaches will enhance validity and reliability and allow greater adaptability to individual student differences.
- Objective-based and criterion-references – having objectives to guide development and interpretation contributes to the relevance of the assessment and its validity.

Service-Learning Assessment

- Develop Criteria for Performance
 - What should each strategy include?
 - Give student evidence of what an excellent/exceptional strategy.
 - Use exceptional models or give models for each level of quality
- Collecting and Analyzing Data or Evidence
 - There should be collection of work samples over a period of time.
 - This evidence will show a progression of learning.
 - The collection of work samples may be analyzed by just the instructor
 - Group of peer students or the community partner or Stakeholder
- Who Does the Assessment?
 - Students, Peers, Instructors, Community Partners, Stakeholders
- Communicate the Learning
 - Feedback is very important. Students will have a better understanding of the learning if they receive communication in the learning process. There are a variety of types: conferencing, emailing, progress reports and group sessions.

Another reason there is a need for performance-based assessment in service-learning. Use McBiles (1998) Characteristics of Performance-Based Education

1. Promotes high expectations for student learning.
2. Is designed to produce students who can demonstrate their knowledge and skills in multiple ways.
3. Is focused on creating connections within the learner's world.
4. Requires strategic planning with the desired end in mind – specific expectations for student learning.
5. Utilizes assessment opportunities that apply content area concepts and higher-order thinking skills and real-life situations.
6. Provides multiple opportunities for learners to reflect and receive guidance and feedback about their learning.

Show each evaluation tool.

1. Instructor Rubrics – Six Educational Development Areas
2. Student-Friendly Rubric – corresponding six areas
3. Scoring Rubric – corresponding six areas
4. Service-Learning Personal Improvement Plan – Front and Back sides.
5. Service-Learning Skills Check-List
6. Abilities Enhanced by Service-Learning Sheet

Describe each rubric, overall goal or objective for each, the criteria and elements, levels of quality. Then describe assessment options, how they get a choice between visual, written and oral. Need to pick two rubrics out of six. Student has to pick one. “ownership of assessment or evaluation tool.” May not meet course curriculum requirements, but use as a template. Integrate rubrics into curriculum standards and expectations.

Discuss the need for student-friendly rubrics. Students felt easier to understand. Again, may not completely resemble needs of course curriculum.

Discuss feedback mechanism—Scoring Rubric. Need for Pre-Mid-End of semester evaluation. Student Self, Peer and Instructor evaluations. Will make sure student has started component, is reflecting, and working at end project.

At the same time, fill out Service-Learning Improvement Plan. Will give student another written confirmation of how learning is progressing. What are strengths and weaknesses encountered at certain points in semester? How can these be improved? What kind of evidence needs to be produced to show student-learning growth?

Lastly, explain Service-Learning Skills Check-list and Abilities Enhanced by Service-Learning Sheet.

APPENDIX K

INSTRUCTOR FOCUS GROUP INTERVIEW QUESTIONS

Please answer these experience questions.

Why did you become involved in Service Learning?

What did you expect to accomplish?

What did you hope to learn or achieve through your participation?

Did you accomplish any goals?

What did you learn about yourself from participating?

What did you learn about your students?

What benefits did you derive from the service-learning experience?

Have you changed your teaching methods as a result of your service-learning experience?
If yes, in what way?

Has service learning changed your life? How?

What were the negatives, if any, of your service-learning experience?

Any other comments:

APPENDIX L

OVERVIEW OF INSTRUMENTS & ANALYSIS TECHNIQUES

Table L1

*Overview of Instruments & Analysis Techniques***DATA FROM STUDENTS**

INSTRUMENT	DESCRIPTION	PURPOSE	ANALYSIS TECHNIQUE
Student Friendly-Rubric <i>n=6</i>	Performance-based assessment tool that describes skills needed to be completed. It also has a check-list for students to use as guiding tool	To help students understand the concepts behind the instructor rubrics. More user friendly to student. In "own" words.	Qualitative review of student interview from using rubrics. Elements and criteria from each rubric were used primarily as descriptive data.
Student Journals (8 questions) (Designed by instructor –from the Civic Participation Rubric) <i>n=5</i>	Students responded to eight uniform questions that focused on students experiences in the program. The questions are chronological in that they attempted to track students' progress throughout the term.	Provided an opportunity for students to describe their experiences in detail. By having students respond to the same questions, comparisons from responses could be made.	Qualitative review of journal entries. Entries were coded based on references made to each element and criteria from the six educational targets. Themes and patterns emerged were noted, coded and labeled.
Content Analysis of Samples (portfolios, etc.) <i>n=8</i>	As part of the course, students were asked to share their work at various times throughout the semester. This sharing came in the form of oral presentations, portfolios, pre/post videos, etc. The researcher visited classrooms on several occasions to observe students' reflection sessions.	Allowed for a broad analysis of students' depth of thinking in regard to the criteria at hand. Analyses of student work helped address questions like "are students getting the most out of their service experiences."	General descriptions about the level of quality and complexity of students' work was noted. Any information that revealed student impacts related to the six educational targets were noted. Data was compared with instructors expectations. Themes and patterns that emerged were noted, coded, and labeled.
Student focus group interviews (semi-structured) 8 questions <i>n=8</i>	Students addressed a series of questions related to their experiences in the program, the impact of their experience on their development and reflections on the service process.	Provided the researcher an opportunity to gather more in-depth data from students. It also provided researcher to investigate pertinent issues not addressed in journals or other assessment option.	Interviews were recorded and transcribed. (All names were removed). Transcripts were coded based on references to rubrics and to each of the six educational targets. Themes and patterns that emerged were noted, coded, and labeled.

(table continues)

DATA FROM COMMUNITY PARTNERS

INSTRUMENT	DESCRIPTION	PURPOSE	ANALYSIS TECHNIQUE
Informal meetings with community site administrators. (in-person meetings) <i>n</i> =5	A short in-person meeting was conducted at each students' community site. Informal questions were designed to assess the community partner's perspective on students' effectiveness at their site. Also questioned motives for service-learning.	To assess the partners' perspective on how service-learning impacts students and how they are helped. Personal meetings with each students' supervisor was conducted and noted.	Questions were designed and asked during informal meeting. Researcher let site partners talk freely about their experiences. Data was used for descriptive purposes.

DATA FROM INSTRUCTORS

INSTRUMENT	DESCRIPTION	PURPOSE	ANALYSIS TECHNIQUE
Service-Learning Rubrics (Instructor) <i>n</i> =6	Performance-based assessment tool that explains the level of quality for each of the six educational targets. Each rubric describes criteria needed to be completed. It also lists assessment options for each area.	To help instructors explain service-learning educational outcomes in each area. Help each student understand the concepts behind the rubrics. Provides use as instructional tool.	Qualitative review of student interviews from using rubrics. Elements and criteria from each rubric were used primarily as descriptive data.
Scoring Rubric <i>n</i> =6	Performance-based assessment tool, that has areas for the student to do a self-evaluation, get a peer or community partner evaluation and ultimately, an area where the instructor does an evaluation	To help instructors are providing Pre-Mid-End of semester evaluations. Provide continuous feedback between instructor and student.	Qualitative review of student interviews from using rubrics. Elements and criteria from each rubric were used primarily as descriptive data.
Service-Learning Personal Improvement Plan	Performance-based assessment tool, which contains several areas for the student to express their strengths and weaknesses of their experience. Also has areas for evidence they can use to support these Areas	Another tool to help instructors collect evidence of their students' learning growth. This tool could also potentially provide valuable reciprocal feedback about the actual service partners and sites.	Qualitative review of student interviews from using improvement plan. Data provided information about student development from six target areas. Themes and patterns were noted, coded and labeled.

(table continues)

DATA FROM INSTRUCTORS

INSTRUMENT	DESCRIPTION	PURPOSE	ANALYSIS TECHNIQUE
Service-Learning Skills Check-List	List of skills for instructors which students obtained or achieved while doing their service-learning experience.	Explanation tool for the instructor to use for expressing anticipated learning growths.	Qualitative review of student interviews from check-list. Data provided information about student development from six target areas. Themes and patterns were noted, coded and labeled.
Instructor focus groups interviews (semi-structured) n=4	Instructors were asked a series of questions about service-learning, assessment and evaluation of student performance. Incorporation of service-learning into course curriculum, the effects of service on students.	Provided an opportunity for the researcher to capture additional data on student development in the six targets. Also gave instructor opportunity to ask researcher about SLTs.	Data that provided information about students' development was noted. Themes and patterns were noted, coded, and labeled. Other data were used for descriptive purposes and for further research.
Classroom visits and observations n=5	Researcher visited the classroom to document any evidence related to student development in the six targets.	Provided first-hand look into instructor supported service-learning. Data from reflection sessions.	Informal notes were taken from students or instructor that revealed information about any of the six educational targets. Themes noted.

DATA FROM ADMINISTRATORS

INSTRUMENT	DESCRIPTION	PURPOSE	ANALYSIS TECHNIQUE
Informal meetings with site and school administrators	Administrators (program directors and deans) were asked a series of informal questions.	To gain understanding of college's SL objectives and administrator's level of support. Informal meetings provided researcher with administrator's beliefs of student benefits in service-learning and on student development.	Most data were used for descriptive purposes. Data provided rich information on how school's reflected on service-learning. Also any information provided that would influence student development from the six targets was coded. Themes and patterns were noted and labeled.

APPENDIX M

MATRIX LAYOUT FOR QUALITATIVE DATA

Table M1

Matrix Layout for Qualitative Data

	Student Tools					
	Student Journals	Student-Friendly Rubrics	Student Focus Group Interviews	Observations Informal Interviews	Samples of Work	Student Post Interview Questions
Instructor Rubric	1	5	9	13	17	21
Scoring Rubric	2	6	10	14	18	22
Improvement Plan	3	7	11	15	19	23
Skills Check-List	4	8	12	16	20	24

APPENDIX N

INSTRUCTOR POST-INTERVIEW QUESTIONS

1. Why did you participate in this Service Learning study?
2. What did you expect to accomplish?
3. What did you hope to learn or achieve through your participation?
4. Did you accomplish any goals?
5. What did you learn about yourself from participating?(Probe: assessment, tools)
6. What did you learn about your students? (Probe: establishing sl outcomes)
7. How did you facilitate the usage of the SLT?
8. Did you feel comfortable when a participant asked questions about the SLT?
(Probe: how did you explain them?)
9. Have you changed your teaching methods as a result of your service-learning experience? If yes, in what way?
10. What did you learn from this experience?
11. In this experience, did you learn from anyone other than your students? (Probe for: community partner, peers, others)
12. Did you feel the students were prepared for this experience? If not, what would have made them more prepared?
13. How did you feel about performance-based rubrics? (Probe: Instructor, student-friendly, scoring, improvement plan)
14. Have you ever used rubrics before?
15. Did you explain how your service-learning component was going to be evaluated?
16. Did you give any goals or outcomes for the service-learning component?
17. Did you feel that the students who participated in the study had to do more than the rest of the class in terms of assessment? Why? (Probe: fair, more challenging, wanted to get something out of it, other)
18. Did you like the choices in choosing an assessment option? Why?
19. What were the negatives, if any, of this service-learning experience?

APPENDIX O

STUDENT POST-INTERVIEW QUESTIONS

1. What did you hope to learn or gain from participating in service-learning?
2. Describe the work you did in the community?
3. What did you learn about the community through this experience? What did you learn in the community that connected to the content of this course? How was the connection made?
4. What skills did you learn from this experience?
5. In this experience, did you learn from anyone other than your instructor? (Probe for: community partner, peers, others)
6. Did you feel the class prepared you for this experience? If not, what would have made you feel more prepared?
7. How did you feel about performance-based rubrics? (Probe: Instructor, student-friendly, scoring, improvement plan)
8. Have you ever used rubrics before?
9. Did your instructor explain how your service-learning component was going to be evaluated?
10. Did they give you any goals or outcomes for the service-learning component?
11. Did you feel you had to do more than the rest of the class in terms of assessment? Why? (Probe: fair, more challenging, wanted to get something out of it, other)
12. Did you like the choices you had in choosing an assessment option? Why?